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MARKET CLASSES AND GRADES OF CATTLE

By

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Division of Livestock, Meats, and Wool
Bureau of Agricultural Economics

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By Don J. Slater, *Marketing Specialist, Division of Livestock, Meats, and Wool, Bureau of Agricultural Economics*

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INTRODUCTION

Each marketing day throughout every year many thousands of cattle are shipped to the large central livestock markets and offered for sale. These cattle are of every kind, displaying a wide range and almost innumerable combinations of the various characteristics such as sex condition, age, weight, size, shape, breeding, and flesh condition. They sell at a wide range in price. These differences in price reflect the degrees of variation in these characteristics and consequently variations in the degrees of merit for uses for which the animals are purchased at the market.

The need for standard market classes and grades of livestock and the benefits that everyone engaged in producing, distributing, and marketing livestock could derive from their general adoption and

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use has long been realized by the most progressive men connected with the industry. Nearly a quarter of a century ago Herbert W. Mumford, of the University of Illinois, did the pioneering work in standardizing market classes and grades of livestock. After doing a large amount of careful research work at Chicago and other large livestock markets, Professor Mumford prepared Bulletin No. 78 of the Illinois Agricultural Experiment Station, entitled, "Market Classes and Grades of Cattle With Suggestions for Interpreting Market Quotations." This bulletin was issued in 1902.

When the Bureau of Markets, now the Bureau of Agricultural Economics, of the United States Department of Agriculture, inaugurated its market-reporting service on livestock at Chicago in 1918 the market classes and grades of cattle as described in Professor Mumford's bulletin were used as the basis for formulating a tentative classification of standard market classes and grades of cattle for use in this market-reporting work. The tentative classification adopted at that time was the result of a conference held at the Chicago Union Stock Yards in which representatives of the former Bureau of Markets, various State agricultural colleges, Chicago Live Stock Exchange, the packers, and several trade journals all took an active part.

At present it is more or less generally recognized that if standard market classes and grades of livestock were in general use all persons connected with the livestock industry would be greatly benefited. Such an arrangement should aid in solving for the producer the questions of what to produce and where and when to sell it. He could then market the grade of livestock he produced at the market demanding it the strongest and willing to pay the most for it. This practice, if followed by all producers, should eventually result in orderly marketing, with all the benefits and savings which accrue therefrom.

SYSTEMS OF MARKET CLASSES AND GRADES OF LIVESTOCK

A study of existing market customs and practices at large central livestock markets shows that the formulation of a set of standards for market classes and grades of cattle is possible because several systems, based on practically the same fundamental principles and more or less perfected, are already in use at most large central livestock markets. These systems have developed with the growth, diversification, and specialization of the cattle industry in the United States. They were made possible by improved methods of transportation and refrigeration and were made necessary by the large increase in urban or consuming population far removed from the center of most economical production, and by the gradual climbing of production costs of cattle to higher levels.

The classes and grades, however, are not described in the same way on all markets, so that the shipper or producer who gets quotations from two or more markets finds that a certain grade is described differently at the different central markets. Each market has developed a workable system, with a certain vocabulary peculiar to itself and common to the trade at that market but not at the other markets.

Because of this variation a demand arose for descriptions of the various classes and grades of livestock, so that when a quotation is given on a certain grade at one of the larger central markets the producer, shipper, or packer knows what such an animal is, whether he is in California, Georgia, or in the Corn Belt.

It was with this fact in mind that the division of livestock, meats, and wool of the Bureau of Agricultural Economics attempted to formulate descriptions of the various classes and grades.

It is possible to formulate a system of standard market classes and grades for any of the different species of livestock which is applicable to the entire United States, but many problems of a more or less serious nature arise in so doing. The formulation of such a system for cattle no doubt presents more real difficulties than are encountered in connection with other species of livestock. These problems have not yet been fully solved, but enough research work has been done, independently and in connection with the livestock market-reporting work of the bureau, to make certain that the fundamentals which form the basis for the standard market classes and grades of cattle described in this bulletin are sound, practical, and workable and possess a high degree of stability.

BASIS FOR STANDARD MARKET CLASSES AND GRADES OF CATTLE

Observation and investigation of market practices and customs in trading in cattle at the large central livestock markets revealed the fact that all cattle received at these markets were bought and sold on the basis of their degree of merit, or adjudged value, for one or another of several uses. It also established the fact that the real trading basis for cattle was their sex condition, age, weight, conformation, finish, and quality, since those connected with the livestock industry had learned from experience that the degree of merit or value which cattle possess for a given market use depends upon and varies in accordance with differences in these factors.

Thus the use to be made of cattle and their sex condition, age, weight, conformation, finish, and quality are fundamentals in any system of standard market classes and grades of cattle. They form the basis of the system described in this bulletin, which system has been used during the last eight years in the livestock market-reporting service conducted by the division of livestock, meats, and wool of the United States Bureau of Agricultural Economics.

CLASSIFYING AND GRADING CATTLE

Classifying and grading a commodity consists merely in dividing and subdividing it into lots or groups which have similar and uniform characteristics, finally arriving at a point where the lot or group shows a comparatively slight variation in the essential characteristics which distinguish it from other groups. It is an analytical process going from the general to the particular, a grouping of individual units in such a way that they finally present a desired amount of uniformity in all essential characteristics.

Classifying and grading are both a part of the same general process, but classification precedes grading. The first divisions ar-

rived at are relatively large groups, called classes. Classes are then divided into a number of groups each relatively smaller in size, called subclasses. Any number of further subdivisions may be made until a group of individual units of the commodity is arrived at, which has the desired degree of uniformity or, in other words, until we have a group of individual units which have a relatively small amount of variation in essential characteristics.

These last groups are called grades. All of the individual units that fall within a grade present such a narrow range of variation in essential characteristics that they usually sell within a comparatively narrow price range. This determination of values before selling is the chief end sought in classifying and grading any commodity for market.

Standard market classes and grades are not possible unless the system is based on reasonably stable or fixed factors or characteristics which may be measured with fair accuracy at any time or place. Any system that is based on factors subject to sudden, frequent, and radical changes in important respects would defeat standardization.

Furthermore, to be of practical use or benefit standard market classes and grades must conform closely to prevailing market customs and practices so that they may be easily understood and available for use by any one engaged in producing or distributing the commodity or by those closely interested in it.

A practical demonstration of the system of classifying and grading cattle as outlined in this bulletin can be seen in the cattle alleys of any of the most highly developed and specialized livestock markets. Here the commission firms prepare for the day's business and trading operations by classing and grading the cattle.

As carried on at these markets, classifying and grading cattle are done by dividing and subdividing, or sorting and resorting, into a considerable number of lots or groups. Cattle as a whole are first divided or sorted into five major classes which are based on the sex condition—steers, heifers, cows, bulls, and stags.

These five classes of cattle are then divided into lots or groups according to age. The division on the basis of age results in what are termed age selections of the five classes of steers, heifers, cows, bulls, and stags.

The age selections of the several classes of cattle are then often divided according to weight, resulting in the different weight selections.

These weight selections are finally divided or sorted according to the degrees of conformation, finish, and quality which they possess. The division of the different weight selections of cattle on the basis of conformation, finish, and quality results in what are known as grades.

When finally graded, cattle are ready for sale. They are usually shown to several buyers who bid on them on the basis of their degrees of merit for the use which the buyers have in mind. This merit is shown by the grade of the cattle or their degree of conformation, finish, and quality as related to the use which the buyer has for them. In placing his bid on the basis of the grade of the cattle the buyer always considers the class or sex condition, age, and weight of the cattle.

Any specific lot or group of cattle is, as a rule, sold to the buyer who bids the highest and may sell for any one of several uses.

MARKET USES OF CATTLE

Cattle received at large central livestock markets are bought and sold either for beef production or for milk production. According to the practices at such markets cattle which are bought and sold for use in beef production fall naturally into three major divisions, according to certain special uses which are made of them. These in the order of their numerical importance are the slaughter, feeder, and stocker uses.

Cattle which are bought and sold for use in milk production are divided into three major groups according to certain special uses to which they are to be put. These in the order of their numerical importance are the springer, milker, and stocker uses.

Thus market practices and customs give rise to six distinct market uses for cattle. The slaughter, feeder, and stocker uses for cattle as related to beef production; and the springer, milker, and stocker uses for cows and heifers or cattle as related to the production of milk.

From a market viewpoint, the market classes and grades of cattle as related to beef production are of great importance, whereas the market classes and grades of cattle as related to milk production are of little significance. As trading for the springer, milker, and stocker uses is necessarily confined to the classes of cows and heifers, this trade is very limited except at a few markets.

Only the market classes and grades of cattle which are bought and sold for the slaughter, feeder and stocker uses as related to beef production are described in this bulletin. Practically all cattle are finally disposed of for slaughter. The relative numerical importance of slaughter cattle and of feeder and stocker cattle at the markets is indicated in Table 1.

TABLE 1.—*Annual receipts of cattle and calves at public stockyards and percentage slaughtered and shipped as stockers and feeders*

Year	Receipts	Slaughter	Stocker and feeder shipments	Per cent of receipts	
				Slaughter	Stocker and feeder shipments
1916	17,675,537	10,293,613	3,846,694	58.2	21.8
1917	23,065,721	13,275,168	4,806,040	57.6	20.8
1918	25,294,557	14,874,380	5,013,039	58.8	19.8
1919	24,629,257	13,633,166	5,286,429	55.4	21.5
1920	22,197,495	12,195,089	4,101,758	54.9	18.5
1921	19,786,794	11,077,766	3,503,809	56.0	17.7
1922	23,218,127	12,435,400	4,863,587	53.6	20.9
1923	23,211,007	13,033,815	4,553,279	56.2	19.6
1924	23,695,407	13,849,670	3,965,802	58.4	16.7

SLAUGHTER CATTLE

DEFINITION OF SLAUGHTER CATTLE

Slaughter cattle are those possessing sufficient fat or finish to meet the requirements of the consuming trade. This designation covers

all animals which will produce meat that is wholesome and fit for human food. Any such animal may be slaughtered and consumed. Briefly slaughter cattle may be defined as a number of individuals which are bought and sold for immediate slaughter. As a rule they have attained an age of approximately 6 months or over.

Cattle when slaughtered produce beef and considerable quantities of certain by-products, the most important of which are the hide and edible offal such as liver, heart, tongue, and fats (surrounding the internal organs). Experience has proved that there is a high degree of correlation between certain physical characteristics, chief of which are the sex condition, age, weight, conformation, finish, and quality, possessed by live cattle and the quantity and grade of the beef and other products to be obtained from them. Therefore on the market different cattle possess different degrees of merit and sell at widely different prices, largely according to the weight and grade of the carcass of beef and the quantity and grade of the other by-products which buyers and sellers estimate the cattle will produce when slaughtered. Thus certain market classes, age selection, and weight selection groups, as well as grades of slaughter cattle, have arisen which are rather generally recognized and established in the trade at most of the large central livestock markets. These have been incorporated into the system of market classes and grades of slaughter cattle shown in the following schedule which it is hoped may eventually become standard:

Slaughter cattle schedule

Class	Age selection	Weight selection	Grade
Steers	Yearling	Lightweight, 800 pounds down	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5. Low cutter or No. 6.
		Mediumweight, 800 to 950 pounds	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.
		Heavyweight, 950 pounds up	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4.
	2 years old and over	Lightweight, 1,100 pounds down	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5. Low cutter or No. 6.
		Mediumweight, 1,100 to 1,300 pounds	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.
		Heavyweight, 1,300 pounds up	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.

Slaughter cattle schedule—Continued

Class	Age selection	Weight selection	Grade
Heifers	Yearling	Lightweight, 800 pounds down	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3 Common or No. 4. Cutter or No. 5. Low cutter or No. 6.
		Mediumweight, 800 to 900 pounds	Prime or No. A1 Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.
		Heavyweight, 900 pounds up	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4.
	2 years old and over	Lightweight, 900 pounds down	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5. Low cutter or No. 6.
		Mediumweight, 900 to 1,050 pounds	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.
		Heavyweight, 1,050 pounds up	Prime or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5.
Cows	All ages	All weights	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5. Low cutter or No. 6.
Bulls	Yearling	do	Choice or No. 1.[1] Good or No. 2.[1] Medium or No. 3.[2] Common or No. 4.[2] Cutter or No. 5.
	2 years old and over	Lightweight, 1,300 pounds down	Choice or No. 1.[1] Good or No. 2.[1] Medium or No. 3.[2] Common or No. 4.[2] Cutter or No. 5.
		Mediumweight, 1,300 to 1,500 pounds	Choice of No. 1.[1] Good or No. 2.[1] Medium or No. 3.[2] Common or No. 4.[2]
		Heavyweight, 1,500 pounds up	Choice or No. 1.[1] Good or No. 2.[1] Medium or No. 3.[2] Common or No. 4.[2]
Stags	All ages	All weights	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Cutter or No. 5. Low cutter or No. 6.

[1] Beef bulls. [2] Bologna bulls.

DEFINITION OF TERMS

Since conformation, finish, and quality are the basis for grade, the description of the various market classes, age selections, and weight selections of slaughter cattle as outlined involves the frequent use of

these terms. These terms are therefore defined as used in this bulletin.

CONFORMATION

Conformation is the build, shape, and outline or contour of the animal. It is caused largely by the size and shape of the bones and muscles, and by the proportions between the different primal parts such as round, loin, rib, and shoulder. Hence conformation is chiefly attributable to breeding. Sex condition exerts a powerful influence except in the case of very young animals. Fat covering is responsible for marked modifications of conformation; hence feeding and care have an important bearing on the matter. Standards or ideals of conformation depend on the immediate use to which the animal is to be put. Grade for grade, a smoother and more rounded conformation is demanded in animals intended for immediate slaughter than in those which are to be used for further feeding.

The conformation demanded in slaughter cattle is one which will insure that the animal, when slaughtered, will have a high proportion of carcass weight and will have a carcass with a proportionately very thick covering of flesh throughout and the highest possible percentage of total weight in the higher-priced cuts—in ribs, loins, and rounds combined. Such conformation involves the build or shape of the animal, its thickness of flesh, and evenness of fleshing.

Slaughter animals present a wide range of variation in respect to these three characteristics of their conformation. In build or shape they may be rectangular and compact to a greater or less degree or they may be angular and rangy to the greatest or smallest extent.

A rectangular and compact animal is one which is relatively wide and deep in proportion to length of body, with a relatively short, wide head, short, thick neck, and short legs which are set wide apart. The top and under lines and the lines of the sides are straight and parallel.

Opposed to the rectangular and compact animal is the angular and rangy animal which is relatively narrow and shallow in proportion to length of body, with a relatively long, narrow head, long, thin neck, and long legs set close together. The top and under lines and the lines of the sides are irregular and oblique and tend to converge at a point in front of or in the rear of the animal.

In fleshing (meaning both the lean and the fat which normally accompanies it) slaughter animals may be thickly and evenly fleshed or the flesh may be thinly and unevenly distributed over the body. In the thick-fleshed animal the lines of the different parts are full and rounded out, having more or less of a convex appearance. In the thin-fleshed animal the lines are depressed or sunken and have a more or less concave appearance.

An animal which is evenly fleshed presents a smooth, plump appearance throughout. The unevenly fleshed animal is more or less uneven, lacking in development in certain regions such as shoulders, crops, back, loin, rump, and thigh.

Best or ideal conformation for slaughter cattle is a general appearance which seems practically perfect in all respects. The animal appears rectangular and very compact with the lines of each part very fully rounded out. The body is very wide and deep in propor-

tion to its length. The legs are very short and set very wide apart. The top and under lines are straight and parallel as are the lines of the sides when viewed from the front, from the rear, or from above. The flesh of the animal is very thick and uniformly distributed over the body, the outlines being sufficiently rounded out to appear convex or plump. The head is very wide and short; the neck is very short and thick, blending smoothly into the shoulder. The top of the shoulder is well covered and full. The width of body from shoulder to tailhead is uniform. The crops, back, and loin are fully developed, blending into each other to give a very plump, even appearance. The ribs (sides) are thickly and evenly covered and the front and rear flanks are full and even with the under line. The hips are well covered and of the same width as the shoulders, the rump being very level, plump, and carrying out evenly the tailhead. The lower part of the thigh bulges slightly at both side and rear and the twist is very low and full.

The build or shape of the animal, together with its thickness and evenness of fleshing, causes the animal to be ideally balanced, thus insuring that it will have a very high proportion of loins, ribs, and rounds combined in its carcass, other factors, principally finish, being equal.

Best conformation is rarely if ever found except in steers or spayed heifers of one of the recognized breeds of beef cattle or high grades and crossbreds of these breeds.

Poorest or most undesirable conformation for slaughter cattle is also indicated by the general appearance of the animal which seems imperfect in all respects. The build or shape of the animal is angular or rangy with the lines very irregular and oblique, sunken or depressed. The body is extremely narrow in proportion to its length. The legs are placed very near each other and in most cases are extremely long. The top and under lines are very irregular and oblique, as are the lines of the sides when viewed from the front, from the rear, or from above. The head is extremely long and narrow. The neck is extremely long and thin, with the shoulder vein much depressed. The shoulders are bare of flesh and open. The width of body from shoulder to tailhead is extremely uneven. The crops, back, and loin lack development. The hips and rump are high, rough, and bare of flesh and the tail head rough and either extremely high or drooped. Frequently the rump is much narrower at the tail head than at the hips, giving a peaked appearance. The ribs are bare and the rear flank is extremely thin and high. The lower part of the thigh is extremely thin and the twist is extremely high.

The flesh of the animal is very thin and the lines are extremely sunken or depressed, the animal closely approaching a state of emaciation in so far as its flesh condition is concerned. The build or shape of the animal, its thickness of flesh and unevenness of fleshing all indicate that it will yield the lowest possible percentage of carcass weight to live weight and an extremely small ratio of total meat to bone in so far as these results are influenced by conformation.

Poorest conformation is usually found in aged cows of dairy type, scrub, or nondescript breeding.

FINISH

Finish is fat. It includes both the fat on the outside of the animal's body and on the inside of the abdominal and thoracic cavities as well as the intermuscular and intramuscular fat. In the live animals the interior fats can be judged only by analogy. Finish involves the quantity, quality, and distribution of fat. Like conformation, it is dependent somewhat on inherited tendencies or breeding, but in the main it depends on the quantity, kind, and quality of feed consumed, age, and sex condition of the animal, and on methods of handling.

The degree of finish demanded in best slaughter cattle is one which will insure that the animal when slaughtered will have a high dressing percentage with the carcass having the proper thickness and firmness of external and internal fat which is smooth and evenly distributed. This degree of finish or fatness involves the thickness, firmness, smoothness, and evenness of both the external fat covering of the carcass and the internal fat which covers the kidneys and the walls of the abdominal and thoracic cavities.

Slaughter animals have a wide range of variation in respect to these characteristics of their finish. The external fat covering of the animal may be very thick or extremely thin. An animal which has a thick fat covering has noticeably large fat deposits over most parts, whereas others are so devoid of fat that they have no apparent deposits of fat at any point. The fat covering of an animal may be very firm or it may be very soft.

The animal with a smooth finish is free of or has relatively small ties, rolls, bunches, or patches, whereas the animal with a rough finish usually has large rolls, bunches, or patches of fat. The fat covering of the animal may also be even or uneven to a very great extent.

The thickness of an animal's fat covering varies on different parts of its body. In the very fat animal the fat is usually thickest over the loins, crops, back, rump and brisket, rear flank, and twist and is usually proportionately thick on other parts of the body. An animal has an even fat covering when the fat is of the right proportionate thickness on each part, and has an uneven fat covering when one or more of the parts do not have the proper proportionate thickness of fat covering.

Best or ideal finish is indicated by the general appearance of the animal, the finish or degree of thickness of the fat covering being sufficient to cause all the lines of the animal to appear fully and equally rounded out. This degree of finish may be more accurately judged by handling, being particularly indicated by a very full brisket, very full rear flanks, and a liberal covering of fat over hip bones, pin bones, and the middle of the sides. The fat covering is extremely smooth, being free of ties or rolls of fat and excessive patches or bunches of fat around the tail head. In animals of this degree of finish each primal part has just the right proportionate thickness of fat covering. The thick outer covering of fat also indicates that there will be more or less liberal distribution of intermuscular and intramuscular fat throughout all parts of the body.

The proper degree of firmness is such that to the touch the fat covering feels very firm, mellow, and springy and is neither soft and flabby nor hard and unyielding.

Best finish for slaughter cattle is typified by some steers, received at large central markets, which come from the feed lots of the best feeders of the Corn Belt and have had a full ration of corn or like concentrated feed for about six months. This degree of finish is seldom found in cattle that do not possess excellent beef type conformation.

Poorest or the least desirable degree of finish for slaughter cattle is denoted by the general appearance of the animal which seems to be entirely devoid of fat covering and little more than skin and bones. There are no apparent deposits of fat in the brisket or rear flank and the hide covering of these parts hangs in folds. Upon handling, not even the smallest deposits of fat can be found in the rear flanks, over crops, back ribs, and loins, or even around the tail head. The animal is so evidently lacking in fat covering that the firmness, smoothness, and evenness of fat covering do not have any significance. The poorest specimens of low cutter cows received at central livestock markets are typical of this degree of finish.

QUALITY

Quality is a characteristic of the muscle or lean meat of the animal and of the intermuscular and intramuscular fat contained therein. It involves the relative size, shape, and condition of the bones; the ratio of bone to muscle and fat; and the quantity, thickness, and character of the connective tissue incasing the muscle divisions.

In animals intended for further feeding, quality involves another characteristic which, though very important, is rather intangible and difficult to describe fully—the ability to take on added weight economically. This is usually an inherited trait or tendency. By experienced stockmen it can be judged with fair accuracy from certain external evidences such as fineness and softness of hair, pliability of hide, width of muzzle, refinement of head, and similar characteristics. Frequently these external features are called quality, but that is a case of substituting the tangible, external evidences of a thing for the thing itself.

Quality is important because it is directly correlated with the tenderness and palatability of meat. The size and strength of the muscle fiber and the percentage and character of the connective tissue directly influence the tenderness of meat. In live animals it is indicated by general refinement, diameter of hair, thickness of hide, size of bone, and thickness of fat covering.

The degree of quality sought for in slaughter cattle is one which insures that the animal when slaughtered will yield a carcass, the flesh of which will be firm; of fine texture and of light or cherry red color; with firm, white fat liberally interspersed throughout the lean meat or muscle; and with the smallest possible percentage of bone.

Slaughter animals present a wide range of variation in the characteristics which indicate quality. In firmness of flesh they may be

firm to a great extent or they may be soft to a very high degree. The flesh of a slaughter animal may have no visible quantity or it may have a very large quantity of intermuscular and intramuscular fat. In the live animal the degree of marbling of the flesh or the quantity of intermuscular and intramuscular fat can be judged only by analogy. It is arrived at through correlation with the animal's sex condition, breeding, age, and degree of external finish.

Slaughter animals may have bones which are very smooth or they may be extremely rough. The degree of smoothness or roughness refers particularly to the joints of the legs and the way in which they are knit or put together. The bones of slaughter animals vary from a relatively high degree of softness to a high degree of hardness. The degree of softness or hardness of the bones of slaughter animals is also judged largely by analogy being arrived at through correlation with the animal's age, feeding, and sex condition.

The hide of slaughter animals may be very pliable and loose or it may be extremely inelastic and tight. The bones of slaughter animals vary from very small to extremely large in proportion to the animal's size and weight. The hide of slaughter animals varies from very thin to extremely thick.

Best or ideal quality for slaughter cattle is denoted by the general refinement of the animal which presents a very clean-cut, well-bred, neat, trim, and pleasing appearance. The animal has very firm flesh; and by such external evidences as thickness of fat covering, breeding, age, and sex condition, it presents every indication that it possesses a very large quantity of intermuscular and intramuscular fat. The bones and joints of the legs are very smooth and judging from the animal's age, sex condition, and feeding, the bones may vary from relatively very soft to slightly hard. The hide is very pliable and loose and the hair is very fine and oily, with a pronounced gloss, sheen, or silken appearance. The bones of the animal are very small, and its hide is proportionately very thin.

Best fat steers and heifers received at livestock markets are typical of this degree of quality.

Poorest or the most undersirable degree of quality for slaughter cattle is indicated by the general coarseness of the animal and its very evident lack of beef-type breeding, care, and handling. Judging from the animal's lack of finish it has no appreciable quantity of intermuscular and intramuscular fat. The flesh is either extremely soft or hard. The bones and joints of the legs are extremely rough and the bones are extremely hard as indicated by the animal's sex condition and age. The hide is very inelastic and tight and the hair is usually extremely dry, harsh, and lifeless in appearance. The bones of the animal are extremely coarse and the hide is extremely thick.

The poorest specimens of old cows or bulls received at central markets are typical of the lowest degrees of quality for slaughter cattle.

CLASSES OF SLAUGHTER CATTLE

Cattle selected for slaughter are divided into five market classes—steers, heifers, cows, bulls, and stags—on the basis of their sex condition. A market class of slaughter or other cattle may be defined as a number of individuals composing a lot or group of cattle in which

each individual has the same sex condition. Cattle are divided into different market classes on the basis of their sex condition because they possess certain physical characteristics peculiar to animals of a certain sex condition. These physical characteristics in time cause marked modification in conformation, finish, and quality which are reflected in the quantity and grade of beef and by-products to be obtained from them when slaughtered.

RELATIVE IMPORTANCE OF MARKET CLASSES OF SLAUGHTER CATTLE

The relative importance of the market classes of slaughter cattle is indicated in Table 2. This table shows the percentage of all slaughter cattle represented by each class for each month of the year, based on the number of cattle slaughtered during a 30-month period, but in this tabulation bulls and stags are considered as a single class. The percentages were computed from data submitted by slaughterers to the United States Food Administration weekly during the World War and supplied monthly thereafter to the Bureau of Markets, now the Bureau of Agricultural Economics, United States Department of Agriculture.

TABLE 2.—*Proportion of classes to total slaughter cattle, in per cent, average by months, July 1, 1918, to December 31, 1920, based on number of slaughter cattle*

Months	Steers	Bulls and stags	Cows	Heifers
January	38.91	2.96	42.63	15.50
February	44.36	3.29	34.90	17.45
March	51.62	2.19	28.95	16.24
April	55.76	2.95	20.33	20.96
May	61.77	3.64	19.63	14.96
June	59.49	3.50	21.97	15.04
July	50.74	4.78	31.04	13.44
August	48.03	3.38	35.29	13.33
September	43.75	3.53	34.58	18.11
October	38.61	3.34	43.95	14.10
November	36.24	3.35	47.02	13.39
December	38.19	2.72	44.22	14.87
Average for 30 months	44.94	3.57	36.53	14.96

In numerical importance steers head the list of the classes of slaughter cattle. They are also the most important class of slaughter cattle when considered from the standpoint of the quantity and quality of the products obtained from them. These facts are demonstrated, in a practical way, every day at large central livestock markets where, grade for grade, steers outsell any of the other classes, but grade for grade, there is little difference between steers and heifers, and up to a certain age and weight, steers and heifers of the same grade sell within practically the same price range at most markets. Certain markets even show a preference for relatively young lightweight heifers and at these markets such heifers frequently outsell steers of the same age, weight, and grade.

STEERS

A steer is a male bovine animal which was castrated before it had reached sufficient maturity to make reproduction possible and has developed physical characteristics peculiar to its class. As a rule

the animal is castrated when it is not more than a few weeks old. On the range, castration is sometimes deferred until the calf is 3 or 4 months old.

Steers have the following physical characteristics which are peculiar to their class and which differentiate them from other classes of cattle: Steers as a class are more rectangular and compact than other classes of cattle as regards general build, or shape. Top and under lines as well as the lines of the sides, are more nearly straight and parallel, owing mainly to the tendency toward evenness of muscular development in the different parts, such as neck, shoulders, loins, crops, back, and rounds, which is characteristic of steers. Steers have a greater thickness of muscular development than heifers or cows, but do not have as great a thickness of muscular development as stags or bulls.

As a class they carry a larger degree of finish than stags or bulls but less than heifers or cows. The distribution of fat is more even in steers than in other classes of cattle and the fat covering is smoother and less patchy or bunchy. As a class the flesh of steers is more highly marbled than that of stags or bulls. As regards thickness of hide, fineness of hair, size of bones, and degree of smoothness at joints of the legs, steers represent a mean between two extremes, being less thick of hide, finer haired, smaller boned, and smoother at the joints of the legs than either stags or bulls, but are thicker hided, coarser haired, larger boned, and rougher at the joints than heifers or cows.

HEIFERS

A heifer is a female member of the bovine family which has never had a calf and which has not reached a stage of advanced pregnancy.

Heifers have certain physical characteristics which are peculiar to them, the possession of which differentiates them from other classes of cattle. As a class, heifers are inclined to be wedge-shaped, being narrower through the shoulders than through the hips and less deep in the fore than in the rear part of the body. The top and under lines and the lines of the sides usually show a slight tendency to converge at a point in front of the animal. They are generally somewhat uneven in muscular development, being as a rule less heavily muscled in the fore than in the hind quarters. As a class heifers have greater thickness of muscle than cows of like age and weight, but are more deficient in this respect than steers, stags, or bulls.

The distribution of fat tends to be slightly uneven in heifers, the fore quarter usually being less thickly covered than the hind quarters. The fat covering of the hind quarters has a slight tendency to be bunchy and excessive. As a rule they have thinner hides, finer hair, smaller bones, and a greater degree of smoothness at the joints of the legs than other classes of cattle.

COWS

A cow is a female member of the bovine family which has had one or more calves or which has reached an advanced stage of pregnancy. Certain physical characteristics which are peculiar to cows and which differentiate them from other classes of cattle are as follows:

Cows as a class have a conformation which is distinctly rangy or angular. As a rule, they are considerably wider through the hips than through the shoulders and have more depth through the fore than through the rear part of the body. The lines of the sides are usually irregular and oblique and show a marked tendency to converge at a point in front of the animal. Relatively large middles or bellies which sag more or less are characteristic of cows as a class. They are less thickly muscled than other classes of cattle of similar age and weight. In thickness of flesh they display considerable unevenness, the hind quarter as a rule being more heavily fleshed than the fore quarter.

The fat covering of cows is usually unevenly distributed. It is greatest over the hind quarters where, if of any considerable degree of thickness, it is inclined to be bunchy and excessive. Cows, as a class, have relatively thin hides, fine hair, small bones, and a fair degree of smoothness at joints of the legs.

STAGS

A stag is a male bovine animal which was castrated after it had reached sufficient maturity to make reproduction possible and which has developed to a noticeable degree many of the physical characteristics peculiar to the adult uncastrated male.

As a rule, stags vary slightly from the rectangular and compact form, being wider and deeper through the fore quarter than through the hind quarter. As a class, stags are heavily muscled, their muscular development being most marked in shoulders and neck and to a considerable extent in the rounds. The top and under lines and lines of the side are more or less irregular and uneven, the top line arching more or less over the withers and neck and the lines of the sides bulging somewhat in the shoulders and rounds.

Stags, with the exception of bulls, carry less thickness of finish than other classes of cattle but their fat is usually fairly well distributed. As a class they have relatively thick hides, coarse hair, large bones, and a relatively high degree of coarseness or roughness at the joints of the legs.

BULLS

A bull is an uncastrated male bovine animal which has reached sufficient maturity to make reproduction possible and has developed physical characteristics peculiar to its class. Bulls as a class show a greater development of masculine characteristics than does the class termed stag.

The general build or shape of bulls is more or less irregular and uneven although it tends to be rectangular and compact. The top line is usually somewhat uneven, being relatively low in the back, rising slightly at the hips and rump and usually rising to a marked degree over the top of the shoulders and neck. As a rule bulls are considerably thicker through the shoulders than through other parts of the body, although rump and rounds are also relatively heavy and thick. Bulls are more heavily muscled than other classes of cattle, the thickness of muscles being especially noticeable in neck, shoulders,

and rounds. As a general thing the overmuscular development of these parts is responsible for marked unevenness in development and in the thickness of flesh of the different parts.

They do not as a rule fatten as readily or carry so much finish as other classes of slaughter cattle but the fat covering is usually fairly smooth, especially in younger animals. As a class, bulls have heavy, thick hides, coarse hair, heavy bones, large, heavy heads, and a marked degree of coarseness or roughness at joints of the legs.

AGE-SELECTION GROUPS OF SLAUGHTER CATTLE

At most markets cattle falling within any one of the several classes just described are often sorted into a number of different groups or lots according to their age. In this bulletin these lots or groups are termed age selections.

An age selection of slaughter cattle may be defined as an individual or number of individuals of any given class, in which the age of each of the individuals composing the group falls within certain specified limits.

It is a well-known fact that an increase in age brings about certain marked changes in an animal. These changes affect both its outward appearance and the physical and chemical composition of the body tissues. As an animal increases in age its build or shape gradually changes and any effect which sex condition has on its build or shape becomes more marked and pronounced. Its muscular development increases with age up to maturity, although the rate of gain in muscular development gradually decreases with increasing age. In younger animals the larger percentage of any gain in weight is usually attributable to muscular development or growth as opposed to a gain in its quantity of fat, whereas in older animals the converse is true. Although an animal's percentage of fat, as a rule, gradually increases with increasing age, the distribution of the animal's fat covering tends to become more or less uneven with increasing age, being especially noticeable in the fatter individuals of the older age-selection groups of the various classes.

As a rule the ratio of carcass weight to live weight increases with increasing age. This is true of nearly all animals which have attained sufficient age to be termed cattle. The percentages of bone and hide usually decrease as the animal increases in age and fatness. The character or chemical composition of the bone changes, the bones becoming harder with increasing age with a like change in the character of the connective tissue.

These changes which occur in an animal as it increases in age are directly reflected in the quantity and grade of the products obtained from the animal and herein lies the significance of age selections of cattle. Hence when trading, buyers and sellers always consider the age of the cattle. In this manner certain age-selection groups have arisen and are in rather general use at most large central livestock markets. The age-selection groups of the classes which are most generally used and which are considered necessary are shown in the Schedule of Market Classes and Grades of Slaughter Cattle, on pages 6 to 7, inclusive.

WEIGHT-SELECTION GROUPS OF SLAUGHTER CATTLE

Cattle of the same age and of the same class attain different weights largely because of variations in breeding, feeding, handling, and care. Buyers of slaughter cattle want cattle of different weights to supply the demand of their different customers. Thus cattle of different ages are often sorted or divided into two or more lots which, in this bulletin and at markets, are called weight selections of slaughter cattle.

A weight selection of slaughter cattle may be defined as an individual or number of cattle of any age selection of any class in which the weight of each individual composing the group falls within certain specified weight limits.

Weight selections are necessary because carcasses and cuts obtained from slaughter cattle of the same class, age selection, and grade vary in weight directly according to the weight of the cattle, and slaughter cattle often sell at a considerable range in price because of the difference in their weight. Prices of live cattle reflect a difference in the prices of the different weights of carcasses and cuts obtained from them. Another reason why weight selections of cattle are of some importance is because the weight influences the dressing percentage to some extent, the dressing percentage usually increasing directly with increasing weight.

The weight selection groups most commonly recognized in present market practice are shown in the schedule of Market Classes and Grades of Slaughter Cattle, pages 6 to 7.

GRADES OF SLAUGHTER CATTLE

Different weight-selection groups enable slaughterers to obtain carcasses of a desired weight that will, in turn, produce carcass cuts of the desired sizes and weights. Slaughterers also look for a certain grade of dressed carcass and carcass cuts with which to satisfy the varying wants of their customers. Accordingly as the final step in the classifying and grading process, the different weight groups are divided into several grades since in the final analysis all slaughter cattle are bought and sold largely on the basis of their grade. Slaughter cattle are divided or sorted into different grades on the basis of the degree of conformation, finish, and quality which they possess at the time of sale.

Grade is determined by an animal's degree of merit for a given market use as shown by the degrees of conformation, finish, and quality it possesses.

In actual market practice there are seven rather generally recognized grades for slaughter cattle: Prime or No. A1, choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, cutter or No. 5, and low cutter or No. 6. These grades of slaughter cattle and the way in which they are arrived at are graphically illustrated in the slaughter cattle grading chart which follows:

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Slaughter cattle grading chart

Lot No. _____ Age _____ Breed _____ Date _____ Town _____
Individual No. _____ Weight _____ Class _____ Grade _____ State _____

Grade	100.00	Prime or No. A1		90.00	Choice or No. 1		80.00	Good or No. 2		70.00	Medium or No. 3		60.00	Common or No. 4		50.00	Cutter or No. 5		40.00	Low cutter or No. 6		30.00	Detail score	Total score
Percentage grade divisions	100.00	98.33	95.00	91.67	88.33	85.00	81.67	78.33	75.00	71.67	68.33	65.00	61.67	58.33	55.00	51.67	48.33	45.00	41.67	38.33	35.00	31.67	30.00		
General description	30.00																								
Conformation	8.00																								
Compactness	2.00	Very compact			Compact			Moderately compact			Slightly rangy			Rangy			Very rangy			Extremely rangy			0.60		
		1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	0.97	0.90	0.83	0.77	0.70	0.63			
Width	1.50	Very wide			Wide			Moderately wide			Slightly narrow			Narrow			Very narrow			Extremely narrow			.45		
		1.48	1.42	1.38	1.33	1.28	1.22	1.18	1.12	1.07	1.03	.98	.92	.88	.82	.77	.73	.68	.62	.58	.52	.47			
Depth	1.50	Very deep			Deep			Moderately deep			Slightly shallow			Shallow			Very shallow			Extremely shallow			.45		
		1.48	1.42	1.38	1.33	1.28	1.22	1.18	1.12	1.07	1.03	.98	.92	.88	.82	.77	.73	.68	.62	.58	.52	.47			
Top line	1.00	Straight and level			Straight and level			Tends to be straight and level			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			Extremely irregular and oblique			.30		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.38	.35	.32			
Under line	1.00	Straight and level			Straight and level			Tends to be straight and level			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			Extremely irregular and oblique			.30		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.38	.35	.32			
Side lines	1.00	Straight and parallel			Nearly straight and parallel			Tends to be straight and parallel			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			Extremely irregular and oblique			.30		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.38	.35	.32			
Finish	9.00																								
Thickness	3.00	Very thick			Thick or slightly too thick			Moderately thick or much too thick			Slightly thin			Thin			Very thin			Extremely thin			.90		
		2.95	2.85	2.75	2.65	2.55	2.45	2.35	2.25	2.15	2.05	1.95	1.85	1.75	1.65	1.55	1.45	1.35	1.25	1.15	1.05	.95			
Smoothness	2.00	Very smooth			Smooth			Moderately smooth			Slightly rough			Rough			Very rough			Extremely rough			.60		
		1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	.97	.90	.83	.77	.70	.63			
Fullness of flank	1.00	Very full			Full			Moderately full			Slightly deficient			Deficient			Very deficient			Extremely deficient			.30		
		.98	.95	.92	.88	.95	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.38	.35	.32			
Fullness of twist	1.00	Very full			Full			Moderately full			Slightly deficient			Deficient			Very deficient			Extremely deficient			.30		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.38	.35	.32			

Uniform covering	2.00	Very uniform 1.97 | 1.90 | 1.83	Uniform 1.77 | 1.70 | 1.63	Moderately uniform 1.57 | 1.50 | 1.43	Slightly uneven 1.37 | 1.30 | 1.23	Uneven 1.17 | 1.10 | 1.03	Very uneven .97 | .90 | .83	Extremely uneven .77 | .70 | .63	.60		
Quality	*13.00*										
Refinement	4.00	Moderately refined 3.93 | 3.80 | 3.66	Moderately refined 3.53 | 3.40 | 3.27	Slightly too coarse or refined 3.13 | 3.00 | 2.87	Slightly too coarse or refined 2.73 | 2.60 | 2.47	Very coarse or refined 2.33 | 2.20 | 2.07	Very coarse or refined 1.93 | 1.80 | 1.67	Extremely coarse or refined 1.53 | 1.40 | 1.27	1.20		
Hide	2.00	Moderately thick, very pliable 1.97 | 1.90 | 1.83	Moderately thick and pliable 1.77 | 1.70 | 1.63	Slightly thick or thin, moderately pliable 1.57 | 1.50 | 1.43	Slightly too thick or thin, slightly unpliant 1.37 | 1.30 | 1.23	Much too thick or thin, unpliant 1.17 | 1.10 | 1.03	Very thick or thin, very unpliant .97 | .90 | .83	Extremely thick or thin, extremely unpliant .77 | .70 | .63	.60		
Hair	1.50	Very fine 1.48 | 1.42 | 1.38	Fine 1.33 | 1.28 | 1.22	Moderately fine 1.18 | 1.12 | 1.07	Slightly coarse 1.03 | .98 | .92	Coarse .88 | .82 | .77	Very coarse .73 | .68 | .62	Extremely coarse .58 | .52 | .47	.45		
Bone	1.50	Medium size 1.48 | 1.42 | 1.38	Medium size 1.33 | 1.28 | 1.22	Slightly too large or small 1.18 | 1.12 | 1.07	Slightly too large or small 1.03 | .98 | .92	Much too large or small .88 | .82 | .77	Very large or small .73 | .68 | .62	Extremely large or small .58 | .52 .47	.45		
Flesh	3.00	Very firm 2.95 | 2.85 | 2.75	Firm 2.65 | 2.55 | 2.45	Moderately firm 2.35 | 2.25 | 2.15	Slightly soft 2.05 | 1.95 | 1.85	Soft 1.75 | 1.65 | 1.55	Very soft 1.45 | 1.35 | 1.25	Extremely soft 1.15 | 1.05 | .95	.90		
Disposition	.50	Very quiet .49 | .48 | .46	Quiet .44 | .42 | .41	Moderately quiet .39 | .38 | .36	Slightly nervous .34 | .32 | .31	Nervous .29 | .28 | .26	Very nervous .24 | .22 | .21	Extremely nervous .19 | .18 | .16	.15		
Color	.50	Very desirable .49 | .48 | .46	Desirable .44 | .42 | .41	Moderately desirable .39 | .38 | .36	Slightly undesirable .34 | .32 | .31	Undesirable .29 | .28 .26	Very undesirable .24 | .22 | .21	Extremely undesirable .19 | .18 | .16	.15		
Detail description	**70.00**										
Head	[1] 1.00	Very short and wide .98 | .95 | .92	Short and wide .88 | .85 | .82	Moderately short and wide .78 | .75 | .72	Slightly long and narrow .68 | .65 | .62	Long and narrow .58 | .55 | .52	Very long and narrow .48 | .45 | .42	Extremely long and narrow .38 | .35 | .32	.30		
Neck	1.50	Very short and thick 1.48 | 1.42 | 1.38	Short and wide 1.33 | 1.28 | 1.22	Moderately short and thick 1.18 | 1.12 | 1.07	Slightly long and thin 1.03 | .98 | .92	Long and thin .88 | .82 | .77	Very long and thin .73 | .68 | .62	Extremely long and thin .58 | .52 | .47	.45		
Brisket	[1] 1.75	Very full .74 | .71 | .69	Full .66 | .64 | .61	Moderately full .59 | .56 | .54	Slightly deficient .51 | .49 | .46	Deficient .44 | 41 | .39	Very deficient .36 | .34 | .31	Extremely deficient .29 | .26 | .24	.22		
	[2] 2.75	Very thick .74 | .71 | .69	Thick .66 | .64 | .61	Moderately thick .59 | .56 | .54	Slightly thin .51 | .49 | .46	Thin .44 | .41 | .39	Very thin .36 | .34 | .31	Extremely thin .29 | .26 | .24	.22		
Chest	2.00	Very wide and deep 1.97 | 1.90 | 1.83	Wide and deep 1.77 | 1.70 | 1.63	Moderately wide and deep 1.57 | 1.50 | 1.43	Slightly narrow and shallow 1.37 | 1.30 | 1.23	Narrow and shallow 1.17 | 1.10 | 1.03	Very narrow and shallow .97 1 .90 | .83	Extremely narrow and shallow .77 | .70 | .63	.60		
Shoulder	[1] 4.50	Very wide 4.42 | 4.28 | 4.12	Wide 3.97 | 3.82 | 3.68	Moderately wide 3.52 | 3.37 | 3.22	Slightly narrow 3.07 | 2.92 | 2.78	Narrow 2.62 | 2.48 | 2.32	Very narrow 2.17 | 2.02 | 1.88	Extremely narrow 1.72 | 1.58 | 1.42	1.35		
	[2] 4.50	Very thick 4.42 | 4.28 | 4.12	Thick 3.97 | 3.82 | 3.68	Moderately thick 3.52 | 3.37 | 3.22	Slightly thin 3.07 | 2.92 | 2.78	Thin 2.62 | 2.48 | 2.32	Very thin 2.17 | 2.02 | 1.88	Extremely thin 1.72 | 1.58 | 1.42	1.35		
Forelegs	[1] 1.00	Very short .98 | .95 | .92	Short .88 | .85 | .82	Moderately short .78 | .75 | .72	Slightly long .68 | .65 | .62	Long .58 | .55 | .52	Very long .48 | .45 | .42	Extremely long .38 | .35 | .32	.30		

[1] Conformation. [2] Finish.

Slaughter cattle grading chart—Continued

Grade	100.00	Prime or No. A1		90.00	Choice or No. 1		80.00	Good or No. 2		70.00	Medium or No. 3		60.00	Common or No. 4		50.00	Cutter or No. 5		40.00	Low cutter or No. 6		30.00	Detail score	Total score
Percentage grade divisions	100.00	98.33	95.00	91.67	88.33	85.00	81.67	78.33	75.00	71.67	68.33	65.00	61.67	58.33	55.00	51.67	48.33	45.00	41.67	38.33	35.00	31.67	30.00		
Detail description—Con.																									
Crops	[1] 2.00	Very full 1.97	1.90	1.83	Full 1.77	1.70	1.63	Moderately full 1.57	1.50	1.43	Slightly deficient 1.37	1.30	1.23	Deficient 1.17	1.10	1.03	Very deficient 0.97	0.90	0.83	Extremely deficient 0.77	0.70	0.63	0.60		
	[2] 2.00	Very thick 1.97	1.90	1.83	Thick 1.77	1.70	1.63	Moderately thick 1.57	1.50	1.43	Slightly thin 1.37	1.30	1.23	Thin 1.17	1.10	1.03	Very thin .97	.90	.83	Extremely thin .77	.70	.63	.60		
Back	[1] 2.50	Straight and very wide 2.46	2.38	2.29	Straight and wide 2.21	2.12	2.04	Moderately straight and wide 1.96	1.88	1.79	Slightly uneven and narrow 1.71	1.62	1.54	Uneven and narrow 1.46	1.38	1.29	Very uneven and narrow 1.21	1.12	1.04	Extremely uneven and narrow .96	.88	.79	.75		
	[2] 2.50	Very thick 2.46	2.38	2.29	Thick 2.21	2.12	2.04	Moderately thick 1.96	1.88	1.79	Slightly thin 1.71	1.62	1.54	Thin 1.46	1.38	1.29	Very thin 1.21	1.12	1.04	Extremely thin .96	.88	.79	.75		
Ribs or sides	[1] 1.00	Very long and well sprung .98	.95	.92	Long and well sprung .88	.85	.82	Moderately long and well sprung .78	.75	.72	Slightly short and flat .68	.65	.62	Short and flat .58	.55	.52	Very short and flat .48	.45	.42	Extremely short and flat .38	.35	.32	.30		
	[2] 1.00	Very thick .98	.95	.92	Thick .88	.85	.82	Moderately thick .78	.75	.72	Slightly thin .68	.65	.62	Thin .58	.55	.52	Very thin .48	.45	.42	Extremely thin .38	.35	.32	.30		
Belly	1.00	Not paunchy .98	.95	.92	Not paunchy .88	.85	.82	Slightly paunchy .78	.75	.72	Slightly paunchy .68	.65	.62	Paunchy .58	.55	.52	Very paunchy .48	.45	.42	Extremely paunchy .38	.35	.32	.30		
Rear flank	[1] .50	Very low .49	.48	.46	Low .44	.42	.41	Moderately low .39	.38	.36	Slightly high .34	.32	.31	High .29	.28	.26	Very high .24	.22	.21	Extremely high .19	.18	.16	.15		
	[2] .50	Very thick .49	.48	.46	Thick .44	.42	.41	Moderately thick .39	.38	.36	Slightly thin .34	.32	.31	Thin .29	.28	.26	Very thin .24	.22	.21	Extremely thin .19	.18	.16	.15		
Loin	[1] 8.00	Very wide 7.87	7.60	7.33	Wide 7.07	6.80	6.53	Moderately wide 6.27	6.00	5.73	Slightly narrow 5.47	5.20	4.93	Narrow 4.67	4.40	4.13	Very narrow 3.87	3.60	3.33	Extremely narrow 3.07	2.80	2.53	2.40		
	[2] 8.00	Very thick 7.87	7.60	7.33	Thick 7.07	6.80	6.53	Moderately thick 6.27	6.00	5.73	Slightly thin 5.47	5.20	4.93	Thin 4.67	4.40	4.13	Very thin 3.87	3.60	3.33	Extremely thin 3.07	2.80	2.53	2.40		
Hips	[1] 2.00	Very wide 1.97	1.90	1.83	Wide 1.77	1.70	1.63	Moderately wide 1.57	1.50	1.43	Slightly narrow 1.37	1.30	1.23	Narrow 1.17	1.10	1.03	Very narrow .97	.90	.83	Extremely narrow .77	.70	.63	.60		
	[2] 2.00	Very thick 1.97	1.90	1.83	Thick 1.77	1.70	1.63	Moderately thick 1.57	1.50	1.43	Slightly thin 1.37	1.30	1.23	Thin 1.17	1.10	1.03	Very thin .97	.90	.83	Extremely thin .77	.70	.63	.60		
Rump	[1] 3.00	Very wide 2.95	2.85	2.75	Wide 2.65	2.55	2.45	Moderately wide 2.35	2.25	2.15	Slightly narrow 2.05	1.95	1.85	Narrow 1.75	1.65	1.55	Very narrow 1.45	1.35	1.25	Extremely narrow 1.15	1.05	.95	.90		
	[2] 3.00	Very thick 2.95	2.85	2.75	Thick 2.65	2.55	2.45	Moderately thick 2.35	2.25	2.15	Slightly thin 2.05	1.95	1.85	Thin 1.75	1.65	1.55	Very thin 1.45	1.35	1.25	Extremely thin 1.15	1.05	.95	.90		
Tail head	[1] 1.00	Even with back line .98	.95	.92	Even with back line .88	.85	.82	Tends to be even with back line .78	.75	.72	Slightly high or drooped .68	.65	.62	High or drooped .58	.55	.52	Very high or drooped .48	.45	.42	Extremely high or drooped .38	.35	.32	.30		
	[2] 1.00	Very thick .98	.95	.92	Thick .88	.85	.82	Moderately thick .78	.75	.72	Slightly thin .68	.65	.62	Thin .58	.55	.52	Very thin .48	.45	.42	Extremely thin .38	.35	.32	.30		

		Very wide and deep	Wide and deep	Moderately wide and deep	Slightly narrow and shallow	Narrow and shallow	Very narrow and shallow	Extremely narrow and shallow			
Thigh	[1] 6.00	5.90 | 5.70 | 5.50	5.30 | 5.10 | 4.90	4.70 | 4.50 | 4.30	4.10 | 3.90 | 3.70	3.50 | 3.30 | 3.10	2.90 | 2.70 | 2.50	2.30 | 2.10 | 1.90	1.80	----	----
		Very deep	Deep	Moderately deep	Slightly shallow	Shallow	Very shallow	Extremely shallow			
Twist	[1] 3.00	2.95 | 2.85 | 2.75	2.65 | 2.55 | 2.45	2.35 | 2.25 | 2.15	2.05 | 1.95 | 1.85	1.75 | 1.65 | 1.55	1.45 | 1.35 | 1.25	1.15 | 1.05 | .95	.90	----	----
		Very thick	Thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
	[2] 3.00	2.95 | 2.85 | 2.75	2.65 | 2.55 | 2.45	2.35 | 2.25 | 2.15	2.05 | 1.95 | 1.85	1.75 | 1.65 | 1.55	1.45 | 1.35 | 1.25	1.15 | 1.05 | .95	.90	----	----
		Very short	Short	Moderately short	Slightly long	Long	Very long	Extremely long			
Hind legs	1.00	.98 | .95 | .92	.88 | .85 | .82	.78 | .75 | .72	.68 | .65 | .62	.58 | .55 | .52	.48 | .45 | .42	.38 | .35 | .32	.30	----	----

[1] Conformation.

[2] Finish.

In the chart the animal which is considered ideal or perfect for the market use of slaughter has been assigned a value of 100 per cent. Such an animal would have that degree of conformation, finish, and quality previously described as best conformation, best finish, and best quality. Its direct opposite, or the animal which is generally considered as the most undesirable, having the lowest possible degree of merit for the market use of slaughter, has been assigned a value of 30 per cent. This value of 30 per cent corresponds with that degree of conformation, finish, and quality which was previously described as poorest conformation, poorest finish and poorest quality.

Thus the total difference between the animal which is considered best or the one having the highest possible degree of merit for the market use of slaughter and the animal which is the poorest or the one having the lowest possible degree of merit for the market use of slaughter, is represented by a range of 70 per cent. This range represents the difference between the best animals of the prime grade and the poorest animals of the low cutter grade. In the slaughter cattle grading chart this range of 70 per cent, illustrating the difference between the best and poorest slaughter animals, has been divided into seven equal parts each having a range of 10 per cent. Each of these divisions corresponds to one of the seven recognized grades of slaughter cattle.

For example, the range of 10 per cent extending from 100 down to 90 per cent represents the prime grade and the range of 10 per cent included between 90 and 80 per cent represents the choice grade. Each of the other grades is represented by a range of 10 per cent.

This chart emphasizes the fact that each grade has a certain range or width with upper and lower limits. On the chart the range or width of each grade has been further divided into three equal parts, designated as percentage grade divisions, each of which is represented by a certain definite percentage.

For example, the range of 100 down to 90 per cent representing the prime grade has been divided into three equal parts which may be considered as top, medium, and low prime grade. The upper third of the grade has a range of 3.33 per cent, extending from 100 down to 96.67 per cent and is represented on the chart by 98.33 per cent or the middle point between 100 and 96.67 per cent, or the halfway mark or average of the upper third of the grade or top prime. The middle third of the grade or medium prime has a range or width of approximately 3.33 per cent, extending from 96.67 down to 93.33 per cent and is represented by 95 per cent or the halfway point or average of the middle third of the grade or medium prime. The lower third of the grade or low prime has a range or width of 3.33 per cent which extends from 93.33 down to 90 per cent and is represented on the chart by 91.67 per cent or the average or middle point of the lower third of the grade or low prime. Each of the other grades has also been divided into three parts—top, medium, and low—and a definite percentage representing each of these divisions is shown; that is, on the chart 88.33 per cent, 85 per cent, and 81.67 per cent, in the order given, represent the top, medium, and low third of the choice grade or top choice, medium choice, and low choice, respectively. Likewise percentages representing each division of the other grades are also shown on the chart.

The grade of an animal is arrived at by judging its degree of merit for the market use of slaughter (1) from the standpoint of general appearance, and (2) from the degree of perfection of each of the various parts of the animal. Accordingly on the chart a value of 30 per cent has been given to the general description and a value of 70 has been assigned to the detail description, making the total of 100 per cent, which represents the animal which is considered as ideal for the market use of slaughter.

The total of 30 per cent assigned to the general description of the animal has been divided in several major parts and a value assigned to each. Of these, conformation has a value of 8 per cent, finish 9 per cent, and quality 13 per cent.

An animal's conformation is judged from its degree of perfection as regards compactness, width, depth, top line, under line, and side lines. Consequently in the order given these factors have been assigned values of 2, 1.50, 1.50, 1, 1, and 1 per cent, making the total value of 8 per cent, which is assigned to conformation.

In like manner values, more or less arbitrarily arrived at, have been assigned to different factors considered when judging the animal's finish and quality.

The total value of 70 per cent assigned to the detail description of the animal has been divided into 18 parts, or the number of the parts of the animal, which are each judged separately and values assigned to each part. In arriving at the value to be assigned to each of the parts the importance of the part was carefully considered (1) from the standpoint of the quantity, and (2) from the standpoint of the quality of the product obtained from the part.

In other words, the relative quantity and comparative value per hundredweight of the product from each of the parts were taken into account. This was arrived at by correlating the different parts of the live animal with the wholesale cuts of beef derived from its carcass.

A detailed explanation of how the values assigned to the parts of live animals known as the crops and back will serve as an illustration of the method of arriving at the values of the various parts as shown on the chart. The crops and back of the live animal are approximately the parts that go to make up the wholesale cut of rib obtained from the carcass. According to the "Chicago method" of cutting a carcass into wholesale cuts of beef, the rib is, on the average, 9.5 per cent of the whole carcass. Thus, on a purely quantitative basis the rib would have a value of 9.5 per cent if the total of all parts had a value of 100 per cent. On the grading chart, however, only 70 per cent out of the total of 100 per cent has been credited to all the parts of the live animal considered under the heading of detail description. Therefore 70 per cent of 9.5 per cent, or 6.65 per cent, is the value that should be assigned to the crops and back (or rib) on a straight quantitative basis. But the rib is one of the most valuable or highest-priced wholesale cuts of beef; hence the crops and back, which go to make up the rib cut, have been assigned values which also represent the quality of beef obtained from these parts.

To work out the value which should be assigned because of quality, the average of the monthly average prices of good grade steer carcasses and of No. 2 wholesale cuts of steer beef, on the wholesale beef market at Chicago, for a period of four years extending from 1921

to 1924, inclusive, were taken as a basis. For these four years the average of the average monthly price of good grade steer carcasses on the Chicago market was $16.10 per hundredweight while the corresponding price of No. 2 steer ribs was $23 per hundredweight, or 1.42 times as much as the carcass on a purely quality basis. Multiplying the quantity value of 6.65 per cent for the rib cut which was previously arrived at by its quality value of 1.42 gives a total value of 9.44 per cent for the rib, or its value on a combined quantitative and qualitative basis.

Hence the crops and back or parts of the live animal which correspond closely to the rib cut in the carcass should have approximately the same value of 9.44 per cent on the chart. Therefore on the chart the crop and back were given a combined value of 9 per cent, 4 per cent being assigned to the crops and 5 per cent to the back. The value of 4 assigned to the crops was divided equally between the conformation and finish of this part, a value of 2 being given to each of these two factors. The value of 5 allotted to the back was also equally divided between the conformation and finish of this part, each of these parts as shown on the chart having a value of 2.50 per cent. Values for the conformation and in most instances for the finish of each of the other parts of the live animal, which are shown on the chart, were arrived at by the same method of procedure.

In using the chart, each minor item listed under the heading of "General description," and the conformation or both the conformation and finish of each part listed under "Detail description," are graded or judged separately and the adjudged value or degree of perfection of the animal with respect to each individual item is checked off on the chart and this value transferred to the column headed "Detail score." For example, the animal may be given a value of 1.83 in compactness or any other one of the 23 different values appearing after the characteristic of compactness, these values ranging from 2 per cent down to 0.60 per cent according to the adjudged degree of perfection which the animal has in so far as compactness is concerned.

Every other characteristic, and the conformation and finish of each part as noted, are also graded and each given a value which represents its degree of perfection or nearness of approach to the ideal. The total of all these values determines the grade of the animal. If the sum of all the different values totals between 96.67 and 100 per cent, or nearest the value or percentage grade division of 98.33 per cent on the chart, which represents the spread or range in grade or quality for the top third of the prime grade, the animal would grade top prime. Again, if the total of all of the different values were 85.90 per cent the animal would grade medium choice, as 85.90 per cent falls nearest the percentage grade division of 85 per cent, shown on the chart, which represents the spread in grade or quality extending from 83.33 per cent to 86.67 per cent or the middle third of the choice grade.

These illustrations emphasize the fact that although each grade has a certain width and covers a certain range which includes a number of different degrees of variation in the characteristics of an animal listed under the heading of "general description" on the chart, and that although an animal may vary considerably in respect

to the degree of perfection of one or more of its various parts, still the grade of an individual animal or group of animals occupies a specific point within the range.

In the description of the grades of slaughter cattle which follows no attempt is made to describe all of the possible combinations of the various degrees of perfection of the various characteristics and of the various parts of an animal listed on the chart, which different animals of the same grade may possess.

In each instance, the grade description given is for an animal which may be considered as typical of the grade and whose degree of perfection of each individual characteristic given under the heading "General description," as well as the degree of perfection of the conformation and finish of each individual part shown under

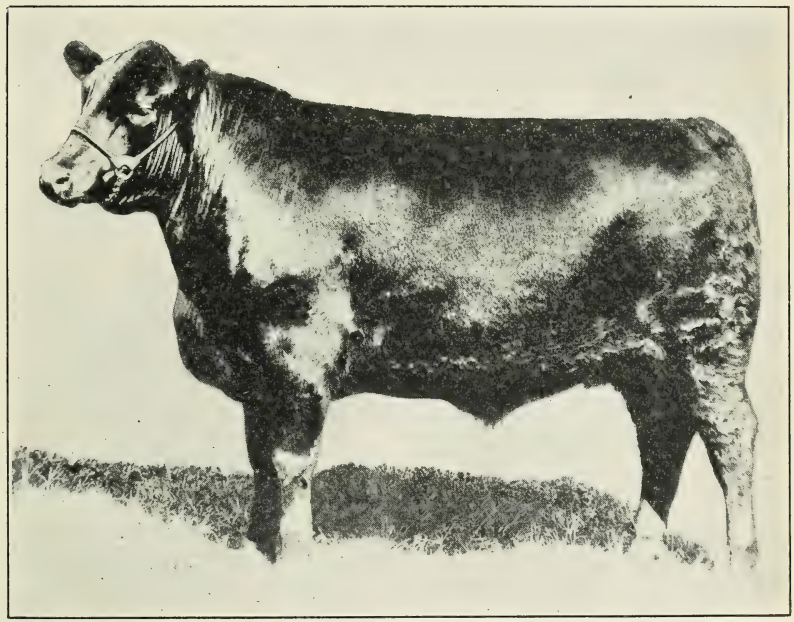

FIG. 1.—Prime grade slaughter steer

the heading "Detail description," are the same, both of which place the animal at a point about midway of the range for the grade, being neither the best nor the poorest animal which might fall within that grade.

GRADES OF SLAUGHTER STEERS

There are seven grades of slaughter steers: Prime or No. A1, choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, cutter or No. 5, and low cutter or No. 6.

Prime or No. A1.—Prime or No. A1 grade slaughter steers very closely approach the ideal in conformation, finish, and quality. They are rectangular and very compact. The body is very broad and deep in proportion to its length. The head is very short and broad. The neck is very short and thick and the legs are very short and set

very wide apart. Top and underlines are straight and parallel, as are the lines of the sides when viewed from the front, rear, or from above. All parts are very thickly and evenly fleshed, each part having its proper proportionate thickness. The very thick fleshing causes each part to have a degree of fullness very much above the average, giving them a very plump, full, and well-rounded appearance. The different parts are developed and balanced in a superior manner, indicating that the animal will have a very high proportion of loins, ribs, and rounds in its carcass.

The animal carries a very thick, smooth, even, and firm covering of fat. The thickness of this varies. It is greatest over the back, brisket, twist, and rear flanks, and gradually diminishes over the sides and legs to the hock and knee joints. Very large deposits of fat in the brisket, flanks, twist, and cod cause these parts to be

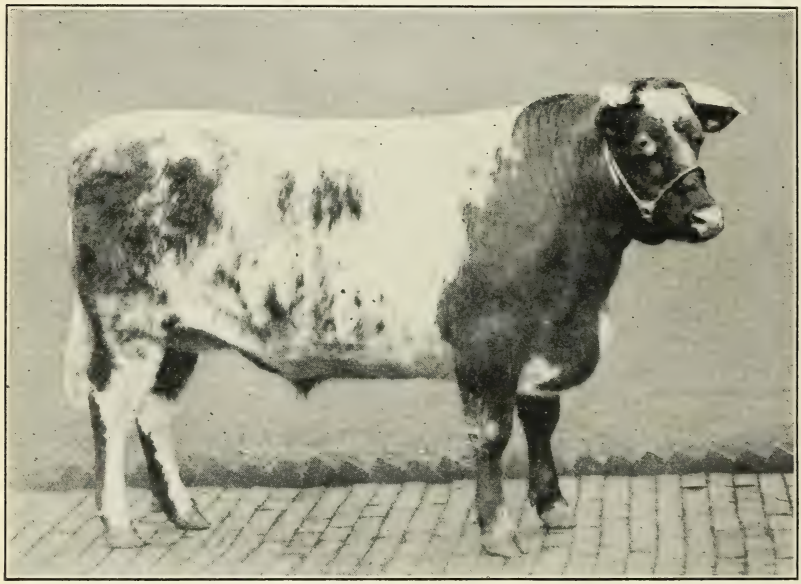

FIG. 2.—Prime grade slaughter steer

rounded out or distended to a degree very much above the average. The fat covering is very smooth and evenly distributed, being free of ties, rolls, and bunches or excessive patches around the tail head, with a degree of firmness which makes it feel very firm to the touch. The quantity of internal fat is very large, corresponding with the external fat in quantity, degree of firmness, and evenness of distribution.

The animal is very neat and trim in appearance. The bones are very small in proportion to the size and weight of the animal and the hide is medium in thickness. Judging from the animal's degree of external fatness and breeding it has a very large quantity of intermuscular and intramuscular fat. The joints of the legs show no indications of coarseness. The hide is very loose and pliable, and the hair has a decided gloss, sheen, or silken appearance and is pleasing to the touch.

Prime grade slaughter steers are high grade, crossbred or purebred individuals of beef type. In age they range from about 1 year old up and are most numerous between the ages of 18 and 36 months. In weight they range from about 900 pounds up, with the bulk weighing from 1,000 to 1,400 pounds. Steers of this grade are rarely offered at the smaller livestock markets and are not regularly on sale even at the largest markets, but at Chicago and some of the other large central markets, prime grade slaughter steers appear in limited numbers practically throughout the year. They are most numerous during national and international livestock shows and during the Christmas holiday season.

Choice or No. 1.—Choice or No. 1 grade slaughter steers are markedly superior in their conformation, finish, and quality. Their general build or shape is rectangular and compact. The body is broad

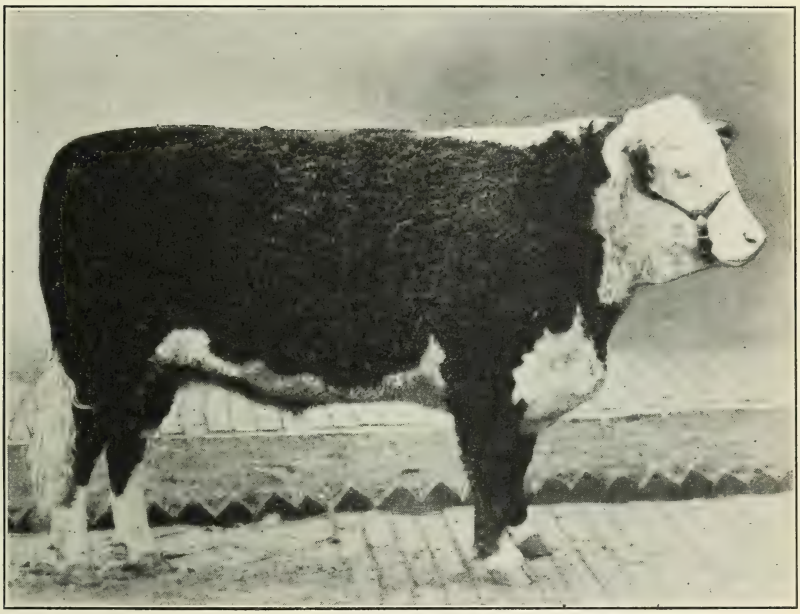

FIG. 3.—Prime grade slaughter steer

and deep in proportion to its length. Top and underlines are nearly straight and parallel, with the lines of the sides presenting a like appearance when viewed from the front, rear, or above. The head is wide and short. The neck is short and thick and the legs are short and set wide apart. The fleshing of each part is thick and even, having nearly its proper proportionate thickness. Each part has a degree of fullness in its lines which is much above the average, giving the animal a plump, full, and well-rounded appearance. It lacks somewhat the plumpness and fullness of the prime grade steer. The way in which the different parts are developed and balanced indicates that the animal will have a high proportion of loins, ribs, and rounds in its carcass.

The fat covering of the animal is thick over the shoulders, crops, back, loins, and rump and moderately thick over the middle of the

sides and lower part of the shoulders and thighs. Large deposits of fat in the brisket, flanks, twist, and cod cause these parts to be rounded out or distended to much more than an average degree. Occasionally the fat covering is slightly too thick or slightly excessive and though usually smooth in such cases may have small ties, rolls, or bunches of fat over the ribs and loins and considerably excessive patches of fat around the tail head, but it is firm to the touch. The evidences of beef-type breeding and the quantity of external fat indicate the quantity of internal fat which may be either large or slightly excessive in quantity but its degree of firmness and evenness of distribution always corresponds in degree with the same characteristics of the external fat.

The general appearance of the animal is neat and trim, reflecting superior breeding and handling. The bones are medium-sized and

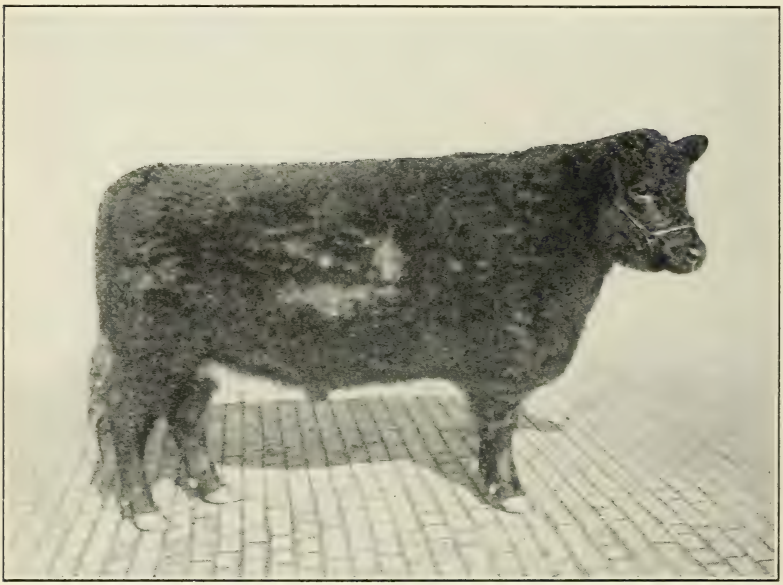

FIG. 4.—Prime grade slaughter steer

the hide is moderately thick and pliable. The animal's degree of external fatness and its breeding characteristics indicate that the flesh has a high or slightly excessive quantity of intermuscular and intramuscular fat. The joints of the legs are smooth. The hide is loose and the hair is oily, having a decided gloss or silky appearance.

Choice grade slaughter steers are largely purebreds, crossbreds, or high grade individuals of beef type. They range from 1 year old up, and are for the most part 1½ to 3 years old. They weigh from 700 pounds up, with most individuals weighing from 900 to 1,400 pounds. They are only occasionally offered at the smaller livestock markets but are nearly always on sale in limited numbers at Chicago and a few of the other larger markets. The larger number appear on the markets between May 1 and December 31 and are scarce during the remainder of the year.

Good or No. 2.—Good or No. 2 grade slaughter steers have a moderately high degree of conformation, finish, and quality. They tend to be rectangular and are moderately compact. They are moderately broad and deep in proportion to length of body. When viewed from the front, rear or above, the lines of the sides tend to be straight and parallel. The neck is moderately short and thick, the head is moderately short and wide, and the legs are moderately short and are set moderately wide apart. Top and underlines tend to be straight and parallel. The thickness of fleshing results in a degree of fullness and smoothness of each part which is noticeably beyond the average of steers as a class, and gives the parts a moderately full, plump, and rounded appearance. The way in which the parts are developed and balanced causes the animal to have some-

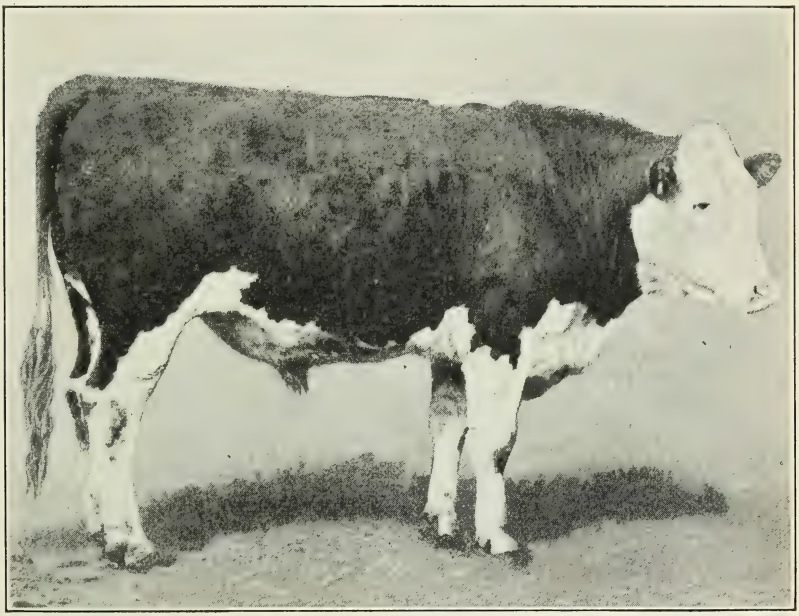

FIG. 5.—Choice grade slaughter steer

what more than an average proportion of loins, ribs, and rounds in its carcass.

A steer of good grade, as a rule, has a moderately thick covering of fat but in some instances the fat covering is much too thick. The fat covering is usually moderately thick over the shoulders, crops, back, loins, and rump but is generally slightly thin over the lower part of the shoulders and rounds and the middle of the sides. Moderately large deposits of fat in the brisket, flanks, twist, and cod give these parts an appearance of being rounded out or distended to a moderate degree. Usually the fat covering is moderately smooth but in cases where steers of this grade are excessively fat, ties, rolls, or bunches of considerable size occur and around the tail head excessive patches of fat are in evidence. The fat covering and the internal fat are moderately firm. The quantity of internal fat is,

as a rule, only moderately large but may be excessive, the extent of this being arrived at through correlation with the quantity or degree of smoothness and evenness of distribution of external fat, the age and breeding of the animal.

In most cases the animal is slightly too coarse or slightly too refined to be ideal, but shows reasonably good beef type breeding, feeding, and handling. The bones are either slightly too large or too small and the hide is either slightly too thick or slightly too thin. Its degree of external fatness and characteristics of beef-type breeding afford evidences of the quantity of intermuscular and intramuscular fat, which is usually slightly small. The joints of the legs have a moderate degree of smoothness. The hide is often slightly dry and inelastic and the hair slightly dry and glossy in appearance.

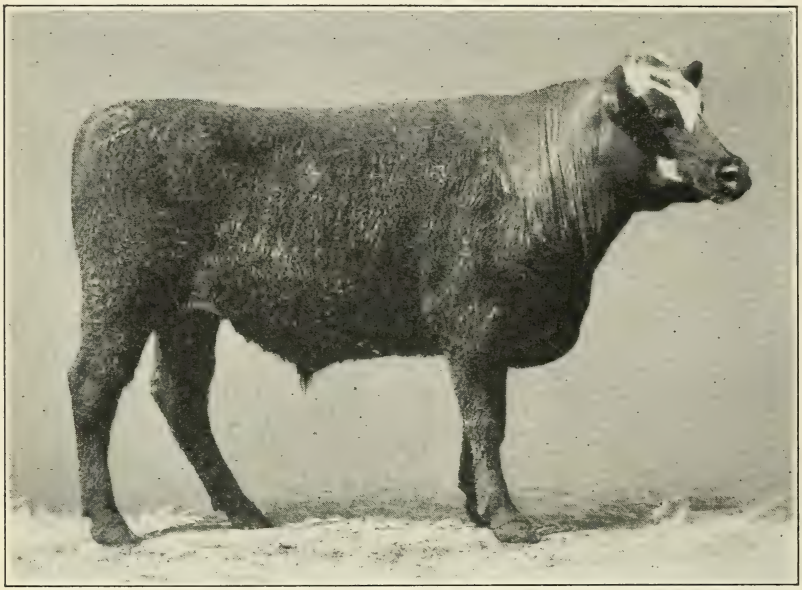

FIG. 6.—Good grade slaughter steer

Steers of this grade range from about 1 year and up in age with the usual age limits extending from 15 months to 4 years. They range from 800 pounds upward in weight with the bulk weighing from 900 to 1,300 pounds. They are not uncommon at most markets and are usually on sale daily at the large markets where they are most freely offered from December 1 to May 1 of each year. They usually show a predominance of the blood of one of the recognized breeds of beef cattle but may show slight traces of dairy-type breeding.

Medium or No. 3.—Medium or No. 3 grade slaughter steers are noticeably deficient in conformation, finish, and quality. They are slightly rangy or angular. The body is slightly narrow and shallow in proportion to its length. The neck is slightly long and thin and the legs are slightly long and are set slightly too close together. The top and underlines and the lines of the sides are slightly oblique

and irregular. The fleshing is slightly thin and uneven. Because of the thickness of fleshing the lines of the different parts are slightly depressed. The way in which the primal parts of the animal are developed and balanced results in a slightly low proportion of loins, ribs, and rounds in the carcass.

The fat covering is slightly thin over the shoulders, crops, back, loins, and rump and thin over the middle of the sides and over the lower part of the shoulders and thighs. The lack of covering causes the bones of the shoulders, back, loin, ribs, hips, and rump to be slightly prominent. The fat covering is not sufficient to cause any ties, rolls, or bunches of fat, but occasionally there are somewhat excessive patches of fat around the tail head. The slightly small quantities of fat deposited in the brisket, flanks, twist, and cod cause

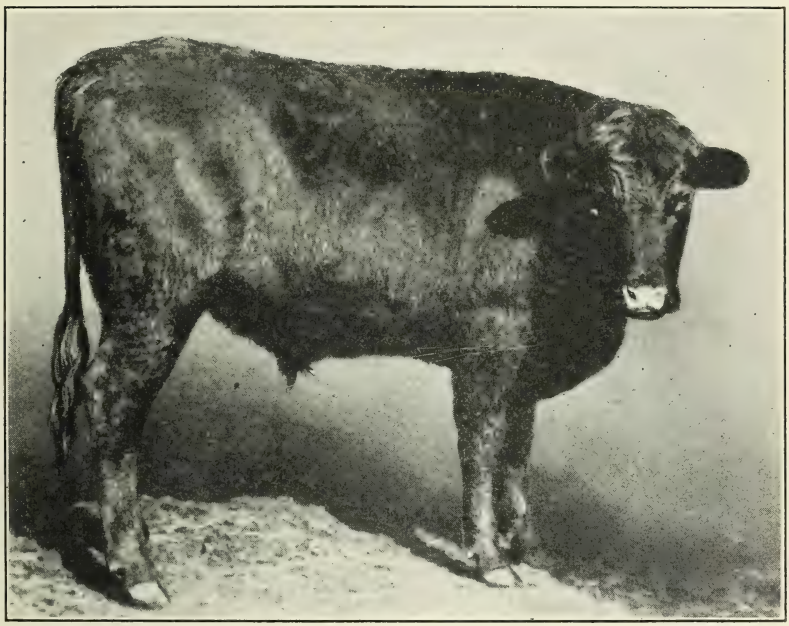

FIG. 7.—Medium grade slaughter steer

those parts to be only slightly distended, and the hide at these points is usually slightly shriveled and wrinkled. The fat is, as a rule, noticeably soft. The quantity and distribution of internal fat and its degree of firmness correspond with the thickness, distribution, and degree of firmness of the animal's external fat covering.

The animal is noticeably lacking in neatness of features and trimness of shoulders, rump, and leg joints and shows an evident lack of care in its handling, feeding, and breeding. The bones of the animal are slightly too large or too small and the hide is slightly too thick or too thin. In most instances there is only a very small quantity of intermuscular and intramuscular fat in the carcass. The joints of the legs are slightly rough. As a rule the hide is slightly unpliant and tight and the hair is slightly dry and harsh.

Steers of this grade are for the most part animals in which the blood of one of the beef breeds predominates but include many animals of pronounced dairy type. They range from about 6 months up in age, with most individuals falling within the 2 to 4 year old age limits. They usually weigh from 800 to 1,100 pounds. They are regularly on sale at practically all livestock markets. Their season of greatest supply extends from June 1 to December 1, and their season of scarcity occurs during the winter and early spring months.

Common or No. 4.—Common or No. 4 grade slaughter steers are deficient in conformation, finish, and quality to a marked degree. They are rangy or angular. The body is narrow and shallow in proportion to its length, the head is long and narrow, the neck is long and thin, and the legs are long in proportion to depth of body

FIG. 8.—Common grade slaughter steer

and set much too close together. Top and underlines are uneven, oblique, and antiparallel to a marked extent, as are the lines of the sides. Such animals are rough over the shoulders, crops, back, loins, hips, and rump, and the bones of the shoulders, ribs, hips, and the backbone have a considerable degree of prominence. The flesh covering the different parts is thin and causes the lines of each one of these to be depressed, sunken, or hollowed out in appearance. The parts are usually developed and balanced so that the individual has considerably less than an average proportion of loins, ribs, and rounds in its carcass.

The fat covering is thin over the shoulders, crops, back, loins, and rump and does not extend very far down on the sides. As a rule, the middle of the sides and the lower parts of shoulders and thighs are entirely lacking in fat covering. Only small quantities of fat are deposited in the brisket, flanks, twist, and cod, and at these points

the hide is badly wrinkled. The fat covering is not sufficient to cause the occurrence of any ties, rolls, or bunches of fat, but small patches of fat are sometimes in evidence around the tail head. The fat is in most instances soft, and the internal fat has a like degree of softness and is insignificant in quantity.

Steers of this grade are for the most part either very coarse or very refined in their general appearance. The flesh of the animal is soft, and in most cases it has only small quantities of intermuscular fat. The joints of the legs are, in most cases, markedly rough. The hide is unpliant and much too thick or thin, and the hair is harsh, dry, and decidedly lacking in oil.

Individuals of the common grade are as a general rule those in which the blood of one of the dairy breeds is predominant or they are of no particular type of breeding. Occasionally they are of beef-

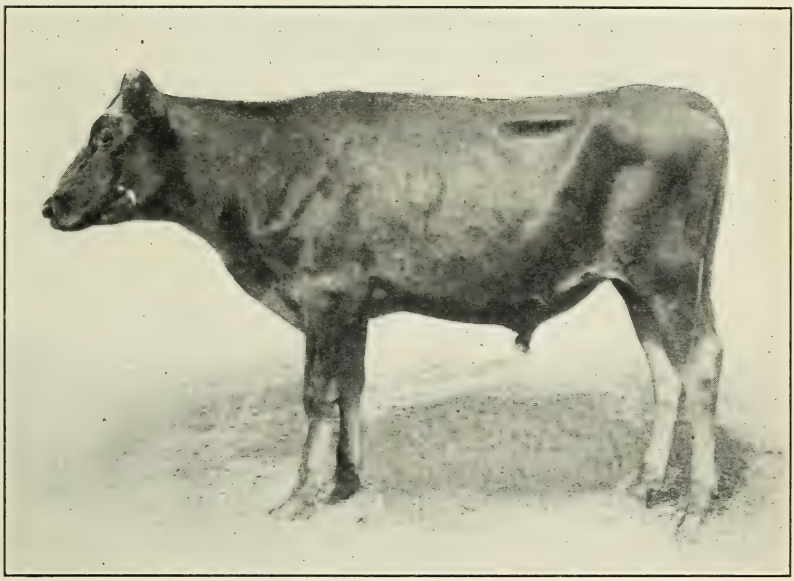

FIG. 9.—Cutter grade slaughter steer

type breeding. They range from 6 months up in age, but most offerings are from 2 to 4 years old. They weigh from 800 to 1,100 pounds in most instances. Practically all markets have a supply of them on hand throughout the year, but as a rule they are scarce during the late winter and spring months and abundant from the early part of summer until late in the fall.

Cutter or No. 5.—Cutter or No. 5 grade slaughter steers are very inferior in conformation, finish, and quality. The general build or shape is very rangy or angular. The body is very narrow in proportion to its length and the neck is very long and thin and the legs are very long and set very close together. Top and underlines are very irregular and oblique and are far from parallel, and the lines of the sides are similar in general directions. Cutter grade steers are very rough over the shoulders, crops, back, loins, hips, and rump.

The bones of the shoulders, the hips, the backbone, and ribs are very prominent. They are very thin in flesh and the thinness of flesh causes the lines of each part to be depressed, sunken, or hollowed out to a very marked degree. The development and proportion of the different parts are such that the animal has a very low proportion of loins and ribs.

The fat covering is very thin over the shoulders, crops, back, loins, and rump. There is practically no fat covering over the greater part of the sides, shoulders, and thighs. Extremely small deposits of fat in the brisket, flanks, twist, and cod cause the hide at these points to be very wrinkled as a rule. The animal has a very low quantity of internal fat, which is usually very soft and of very poor quality corresponding with the external fat covering.

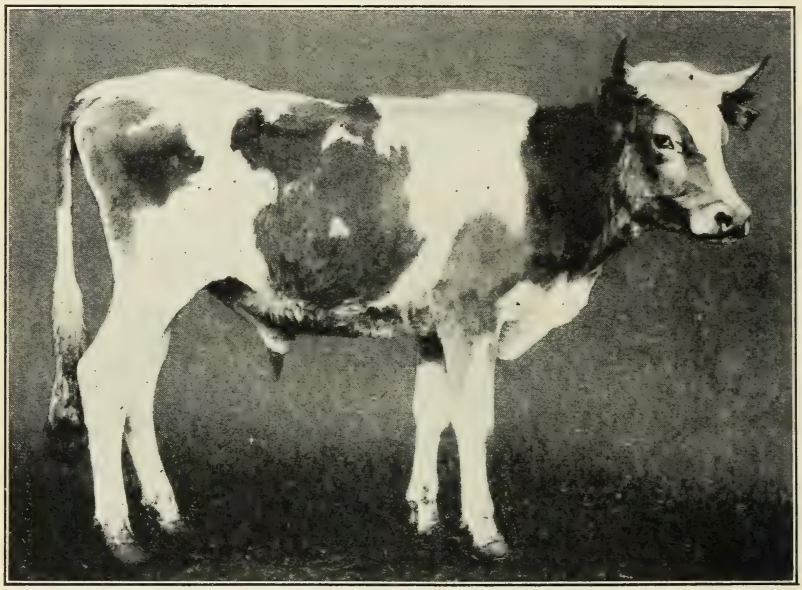

FIG. 10.—Low cutter grade slaughter steer

The bones are very large or very small and the hide is very thick or thin. The flesh is either very soft or slightly hard and has practically no intermuscular fat judging from the degree of external finish. The joints of the legs are usually very rough and course and the hide is almost invariably inelastic and tight and the hair is nearly always very dry and harsh.

Steers of this grade include a few individuals of beef-type breeding, but as a rule they are of pronounced dairy type or are nondescripts. They range from 6 months old upwards, with most of the offerings falling within the age limits of 2 to 4 years. As a rule they weigh less than 900 pounds. They are marketed in greatest numbers from June 1 to December 1 of each year.

Low cutter or No. 6.—Low cutter or No. 6 grade slaughter steers are extremely deficient in conformation, finish, and quality. They are extremely rangy or angular. The body is extremely narrow in proportion to its length, the neck is extremely long, tapering, and

thin and the legs are extremely long in comparison to depth of body and are set extremely close together. Top and underlines are extremely irregular and oblique and very far from parallel, as are the lines of the sides. They are extremely rough over the shoulders, crops, back, loins, hips, and rump, and the bones of the shoulders and hips, the ribs, and the backbone are all extremely prominent. They are extremely thin-fleshed and the lines of each of the different parts are depressed, sunken, or hollowed out to very near the greatest possible extent. The animal has an extremely low proportion of loins and ribs in the carcass, which is indicated by the way in which the different parts are balanced.

The animal has no apparent fat covering. Even the rib, loin, and rump are entirely lacking in covering of fat. There are no apparent deposits of fat either in the brisket or rear flanks and the hide at these points usually hangs in folds and is, as a rule, extremely wrinkled. As a general rule the animal has approximately no internal fat which is indicated by the extreme lack of external finish.

The animal usually has a very unkempt and very poorly cared for appearance. The bones are extremely large or small and the hide is extremely thick. The flesh, as a rule, is either hard or extremely soft. The joints of the legs almost invariably are very rough. The hide is extremely thick or thin and unpliant and is tight, the hair usually appearing extremely harsh and dry.

Most low cutter grade steers are so-called scrubs, which are so badly mixed in breeding that no one type appears dominant, but they occasionally are of beef-type breeding. They are limited in supply during all seasons of the year but are most numerous during the summer and fall months. They range in age from 6 months up but the largest percentage of the supply falls within the ages of 1½ and 2½ years. They usually weigh under 800 pounds.

GRADES OF SLAUGHTER HEIFERS

There are seven grades of slaughter heifers: Prime or No. A1, choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, cutter or No. 5, and low cutter or No. 6.

Prime or No. A1.—Prime or No. A1 grade slaughter heifers are very nearly perfect in conformation, finish, and quality. Their general build or shape is rectangular and compact. The body is very broad and deep in proportion to its length. The head is very broad and short. The neck is very short and thick and the legs are very short and set very wide apart. Top and underlines are straight and level as are the lines of the sides. All parts are very thickly fleshed, each having its proper proportionate thickness causing the fleshing as a whole to be very even. The lines of each part are very full, plump, and well-rounded. The animal is extremely well balanced and developed, indicating that it will have a very large proportion of loins, ribs, and rounds in its carcass.

The animal has a very thick covering of fat over the shoulders, crops, back, loins, and rump. The fat covering is proportionately thick over the middle of the sides and the lower part of the shoulders and thighs extending down to the hock and knee joints. Very large deposits of fat in the brisket, flanks, twist, and around the udder,

cause these parts to be rounded out or distended to a very high degree. The fat covering is very smooth, being free from ties, rolls, or bunches, and excessive patches of fat around the tail head. The fat covering is evenly distributed but is usually slightly thicker over the hind quarters than over the fore quarters. It is very firm to the touch. The internal fat corresponds with the external fat in quantity, degree of firmness, and evenness of distribution.

The animal is moderately refined in appearance. The bones of the animal are of medium size and the hide is moderately thick in proportion to its size and weight. The flesh is very firm and the breeding and degree of external fatness indicate that it has a very large quantity of intermuscular and intramuscular fat. The joints of the legs are extremely smooth. The hide is very pliable and loose

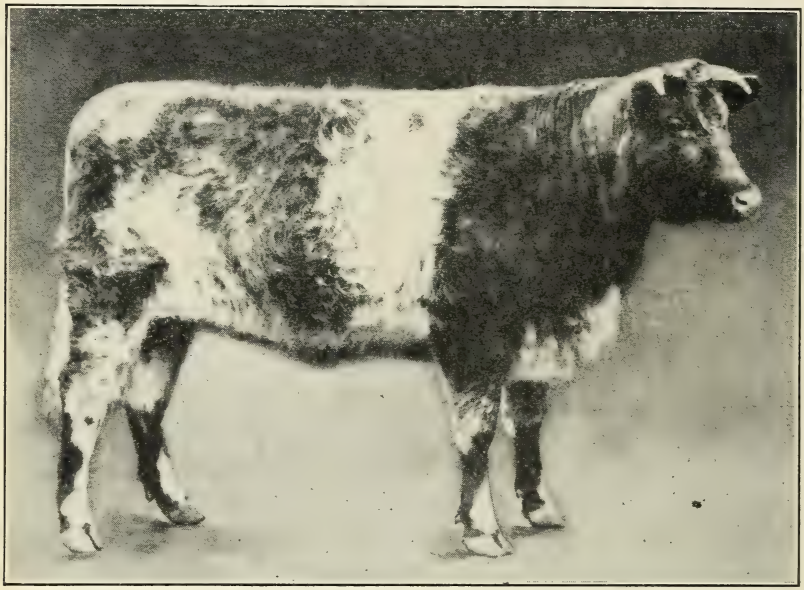

FIG. 11.—Prime grade slaughter heifer

and the hair is oily and has a very decided gloss, sheen, or silken appearance.

This grade of slaughter heifers includes only high-grade, crossbred, or purebred individuals of beef-type breeding. In age they range from around 1 year up and are most numerous between the ages of 15 and 24 months. Weights range from around 900 pounds up with the bulk weighing from 900 to 1,100 pounds. Heifers of this grade are almost negligible in receipts at all markets although they are occasionally received at Chicago and a few of the other large central markets during and immediately following the national or international livestock shows.

Choice or No. 1.—Choice or No. 1 grade slaughter heifers are markedly superior in conformation, finish, and quality. Their general shape or build is rectangular and compact. They are broad and deep in proportion to length of body. The head is wide and short, the neck is short and thick and the legs are short and set wide apart.

The top and under lines are straight and level and nearly parallel. Not infrequently the lines of the sides show a very slight tendency to converge at a point in front of the animal because of slightly less width of body through the shoulders than through the hips. They are thickly fleshed but slightly uneven in fleshing, the fore quarters being slightly less thickly fleshed than the hind quarters; but the lines of each part appear full, plump, and well-rounded out and are developed and balanced in a way which indicates that the animal will have a high proportion of loins, ribs, and rounds in its carcass.

The animal has a thick covering of fat over the shoulders. The fat is usually slightly thicker over the loins and rump than over the shoulders, crops, and back and is moderately thick over the middle of the sides and the lower part of the shoulders and rounds but extends well down toward the knee and hock joints. There are

FIG. 12.—Choice grade slaughter heifer

large deposits of fat in the brisket, flanks, twist, and around the udder, giving these parts a well rounded-out appearance and they are distended to a considerable extent. The fat covering is smooth but often has small ties, rolls, or bunches of fat over the loins or ribs and somewhat excessive patches of fat around the tail head. Some individuals have slightly too great a thickness of fat. The finish is always firm to a marked degree. The quantity, degree of firmness, and evenness of distribution of internal fat, usually correspond with the quantity and the degree of these characteristics found in the external fat covering.

The general appearance is one of a moderate degree of refinement. The bones are of medium size and the hide is moderately thick and pliable. The animal's breeding and degree of external fatness indicate that it has a large quantity of intermuscular and intramuscular fat. The joints of the legs are very smooth and small. The hide is

loose and the hair is oily and has a decided gloss, sheen, or silken appearance.

This grade is composed almost exclusively of high-grade, crossbred or purebred individuals of beef-type breeding. In age they range from about 1 year old to 2 years old. They range in weight from around 700 to 1,200 pounds or more with relatively few of them weighing over 1,000 pounds. They are only occasionally offered at the smaller livestock markets but are nearly always on sale in limited numbers at Chicago and a few of the larger markets. Their season of greatest supply extends from May 1 through December 31 and as a rule they are in scant supply during the remainder of the year.

Good or No. 2.—Good or No. 2 grade slaughter heifers have a moderately high degree of conformation, finish, and quality. They tend to be rectangular and are moderately compact, having a mod-

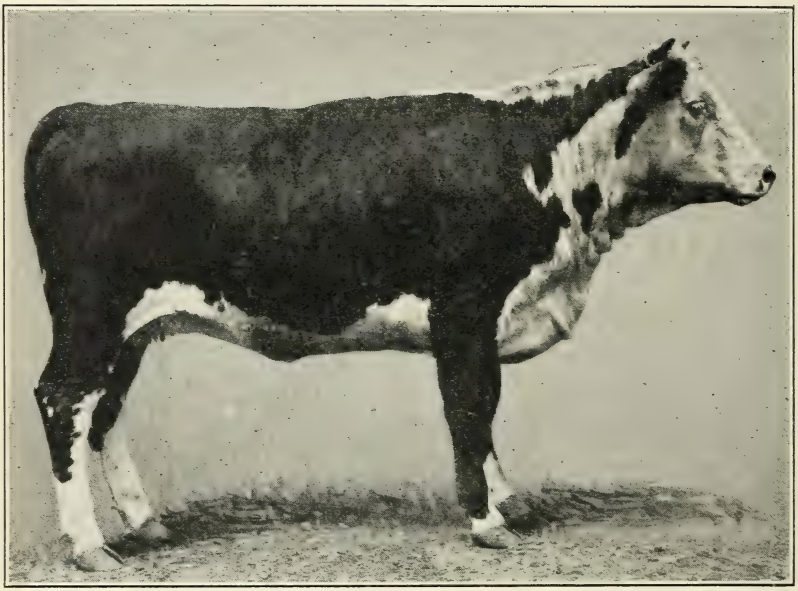

FIG. 13.—Good grade slaughter heifer

erately high measure of breadth and depth in proportion to length of body. The head is moderately short and wide, the neck is moderately short and thick, and the legs are moderately short and set moderately wide apart. The top and under lines tend to be even, straight, and parallel. The lines of the sides tend to be even and parallel, but as a rule converge slightly at a point in front of the animal. The animal is moderately thick in flesh, but as a rule the fleshing is slightly uneven, being slightly less thick over the fore quarters than over the hind quarters. As a general rule a heifer of this grade has moderately full lines, which give a moderately plump appearance. It will have a high proportion of loins, ribs, and rounds in the carcass, which is indicated by the development and balance of the parts.

As a rule, they have a moderately thick covering of fat over the loins and rump, with the fat slightly less thick over the shoulders,

crops, and back. They have only a thin layer of fat over the lower part of the shoulders, rounds, and the middle of the sides. This grade includes some heifers which have a fat covering which is much too thick, and in some cases there are large ties, rolls, or bunches of fat over the loin or ribs and patches of fat around the tail head. The fat is always moderately firm, however, and is usually moderately smooth. There is always a high degree of correlation in the quantity, degree of firmness, and evenness of distribution of the external and internal finish.

The animal is usually slightly too coarse or too refined in general appearance, but shows reasonably good care in its handling. The bones are slightly too large or small, and the hide is medium in thickness. The flesh is moderately firm and the external fatness and breeding characteristics indicate that the animal has a moderately small quantity of intermuscular and intramuscular fat. The joints of the legs are moderately smooth. The hide is moderately pliable and loose and the hair is slightly oily and has a slight gloss, sheen, or silken appearance.

This grade includes individuals upward from somewhat under 1 year in age, with the usual age limits extending from 1 to 2 years. They weigh from about 700 pounds up to 1,000 pounds or more, with a very large percentage of them weighing from 700 to 900 pounds. They are not regularly on sale, but are not uncommon at the smaller livestock markets and are offered more or less regularly in limited supplies at the larger central markets. The season of greatest supply extends from the late summer months up to December 1, with their season of scarcity occurring during the late winter and spring months. They usually show a large percentage of the blood of one of the recognized purebred breeds of beef cattle, but some individuals which show traces of the dairy-type breeding are included in this grade.

Medium or No. 3.—Medium or No. 3 grade slaughter heifers are slightly deficient in their conformation, finish, and quality. They are slightly rangy or angular. The body is slightly narrow and shallow in proportion to its length. The head is slightly long and narrow, the neck is slightly long and thin, and the legs are slightly long in proportion to depth of body, and set slightly close together. The top and underlines and the lines of the sides are slightly oblique and irregular. The bones of the shoulders and hips and the backbone and ribs are all slightly prominent. They are, as a rule, slightly thin in flesh with the fleshing slightly uneven, being slightly thinner over the fore quarter than the hind quarter. The proportion of loins, ribs, and rounds is usually slightly small in the animal's carcass, and is indicated by the way in which the different parts are developed and balanced.

The fat covering is slightly thin. As a rule the thickness of fat covering is not sufficient to cause the presence of any ties, rolls, or bunches of fat but frequently there are small patches of fat around the tail head. It is slightly thin over the shoulders, crops, back, loins, and rump and is thin over the middle of the sides and the lower part of the shoulders and thighs. Slightly small quantities of fat are deposited in the brisket, rear flanks, and twist, and the hide at these points is usually slightly shriveled and wrinkled. The fat

is slightly soft as a general rule. The quantity of internal fat and its degree of firmness and evenness of distribution usually correspond with the thickness, firmness, and distribution of the external fat.

An animal in this grade shows by its general appearance that a reasonable amount of care has been given to its breeding, feeding, and handling, but as a rule the animal is slightly too coarse or refined. The bones are usually slightly too large or too small and the hide slightly too thick or thin and slightly unpliant. The flesh of the animal is slightly soft and in most instances has only a small quantity of intermuscular and intramuscular fat. The joints of the legs are slightly rough. As a rule, the hide is inclined to be tight and the hair is slightly dry and harsh.

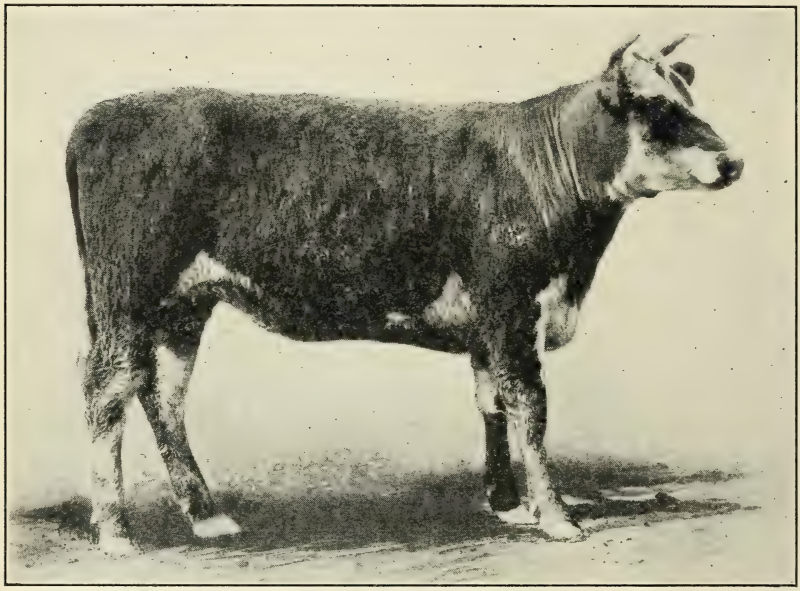

FIG. 14.—Medium grade slaughter heifer

Heifers of this grade are about equally divided between those which have a predominance of beef-type breeding and those which show a preponderance of dairy-type breeding. They range from approximately 6 months up in age, but are practically all under 2 years old. They weigh from around 800 pounds down, but very few weigh as much as 900 pounds. They are more or less regularly on sale at practically all large central markets, with their season of greatest supply occurring during the late summer and fall months and the season of scarcity extending from around January 1 until June 1.

Common, or No. 4.—Common or No. 4 grade slaughter heifers are deficient in conformation, finish, and quality to a marked degree. They are rangy or angular, the body being narrow and shallow in proportion to its length. The head is long and narrow, the neck is long and thin, and the legs long and set much too near

each other. Top and underlines are irregular, oblique, and antiparallel, as are the lines of the sides. They are rough over the shoulders, crops, back, loins, hips, and rump and the bones of those parts are prominent to a considerable degree. The flesh is thin and uneven, being slightly thinner over the fore quarters than over the hind quarters. The thickness of flesh covering the different parts causes the lines of each of these to have a depressed, sunken, or hollowed-out appearance. The parts are so developed and balanced that the individual has only a small proportion of loins, ribs, and rounds in its carcass.

The fat covering is thin over the shoulders, ribs, loins, and rump, and does not extend very far down on the sides. The lower part of the shoulders and rounds and the middle of the sides are entirely

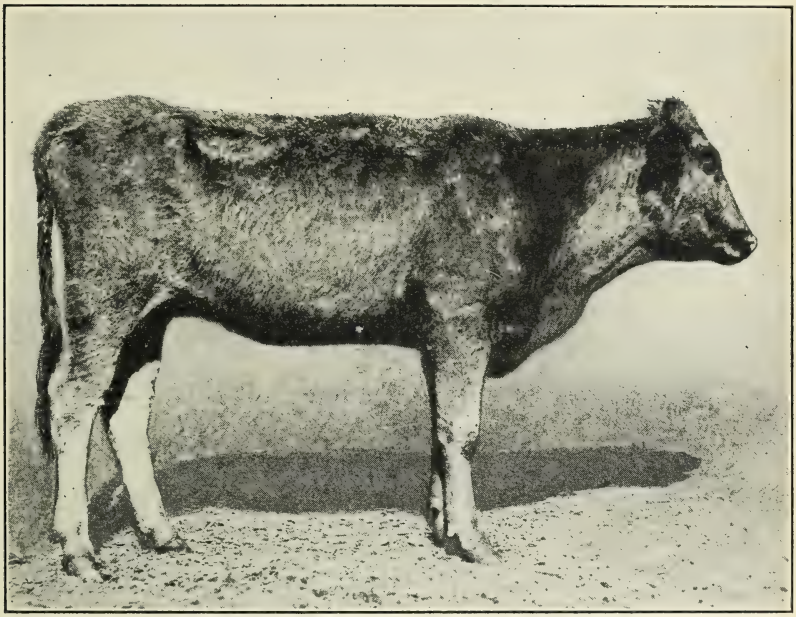

FIG. 15.—Common grade slaughter heifer

lacking in fat covering. Only small quantities of fat are deposited in the brisket and flanks and the hide covering these parts is generally much wrinkled. The fat covering is not sufficient to cause the occurrence of any ties, rolls, or bunches of fat, but small patches of fat are frequently found around the tail head. The fat is soft and the internal fat has a like degree of softness and is small in quantity.

Heifers of this grade generally appear unkempt and poorly cared for and are usually very coarse or very refined. The bones of the legs are usually much too small or too large and the hide much too thick or thin and unpliant to a marked degree. The flesh is soft and, as a rule, has only small quantities of intermuscular and no visible intramuscular fat. The hide is often tight and the hair coarse, harsh, dry, and lacking in oiliness.

Individuals of this grade are usually of pronounced dairy type or of no particular type of breeding, but they are occasionally of beef-type breeding. They range from approximately 6 months old up, but practically all offerings are under 2 years old. They almost invariably weigh less than 800 pounds. Nearly all large central markets have a limited supply of them on hand throughout the year. They are usually very scarce during the late winter and spring months, but the supply usually exceeds the demand during the late summer and fall.

Cutter or No. 5.—Cutter or No. 5 grade slaughter heifers are very inferior in conformation, finish, and quality. Their general build or shape is very rangy or angular. The body is very narrow in proportion to length. The head is very narrow and long, the neck is very long and thin, and the legs are very long and set very near each other. Top and underlines are very irregular, oblique, and antiparallel, and the lines of the sides have like characteristics. The animal is very rough over the shoulders, crops, back, loins, hips, and rump, and the bones of these parts are very prominent. The flesh is very thin and the lines of each of the parts are very much depressed and sunken or hollowed out in appearance. The way in which the animal has its parts developed and balanced indicates that it will have a very low percentage of ribs and loins in its carcass.

The fat covering is very thin over the shoulders, crops, back, loins, and rump, and there is practically no fat covering over the greater part of the sides, shoulders, and thighs. Very small deposits of fat in the brisket and rear flanks cause the hide at these points to be very much wrinkled in appearance. The animal has very little internal fat, which is indicated by the small quantity of external finish.

Heifers of this grade have a very unkempt and poorly cared for appearance and are usually very refined or very coarse. The bones of the legs are usually very small or very large, and the hide is generally very thick or thin and very unpliant. The flesh is either very soft or slightly hard, and judging from the degree of external finish the animal has very little intermuscular fat. The joints of the legs may be very rough and coarse, and the hide is usually very tight and the hair nearly always very dry and harsh.

Heifers of this grade include a few individuals of beef-type breeding, but they are usually of pronounced dairy type or of no particular type of breeding. They range from around 6 months up to 2 years old for the most part and usually weigh under 700 pounds. They are offered in very limited numbers from January 1 to around June 1 of each year, but during the late summer and fall months the supply usually exceeds the demand.

Low cutter, or No. 6.—Low cutter or No. 6 grade slaughter heifers are extremely inferior in conformation, finish, and quality. Their build or shape is extremely angular or rangy. The body is extremely narrow in proportion to its length. The head is extremely long and narrow, the neck is extremely long, thin, and tapering, and the legs are placed extremely near each other. The top and underlines are extremely irregular and oblique with the underline usually having a pronounced sag in the middle. The lines of the sides are irregular and oblique to an extreme degree. The animal is extremely rough

over the shoulders, crops, back, loins, hips, and rump and these parts are all extremely prominent. The flesh is extremely thin with the lines of the different parts extremely depressed, sunken, or hollowed-out in appearance. The development and balance of the different parts indicate that the animal has the lowest possible proportion of total meat to bone.

The fat covering is extremely thin and usually even the rib, loin, and rump are, to all outward appearance, entirely lacking in covering of fat. There are no apparent deposits of fat either in the brisket or rear flanks, and the hide surrounding these parts usually hangs in folds and as a rule is extremely wrinkled. The animal has practically no internal fat as indicated by the extreme lack of external fat.

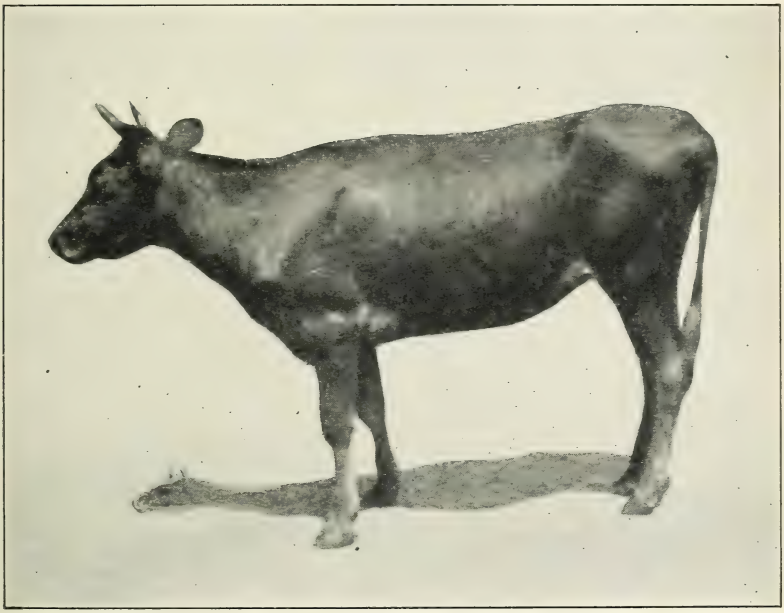

FIG. 16.—Low cutter grade slaughter heifer

Heifers of this grade are most unattractive in appearance, and as a rule are either extremely refined or coarse. The bones of the legs are generally either extremely small or large and the hide extremely unpliant. The flesh is either very soft or hard and the animal has negligible quantities of internal fat. The joints of the legs sometimes appear extremely rough. The hide is, as a rule, extremely tight and the hair is practically always extremely dry, harsh, and lacking in oil.

Low cutter grade heifers may be of beef-type breeding, but they are almost invariably dairy type or so badly mixed in breeding that no type appears dominant. In age they range from about 6 months up with the largest percentage of the supply falling within the age limits of 1 to 2 years. They usually weigh less than 600 pounds. They are always in very limited supply at all central markets but

are most numerous during the "clean-up" season of farms and ranges which extends from September 1 to around December 1.

GRADES OF SLAUGHTER COWS

There are six grades of slaughter cows: Choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, cutter or No. 5, low cutter or No. 6.

Choice or No. 1.—Choice or No. 1 grade slaughter cows are much superior in conformation, finish, and quality. They are rectangular and compact. The body is broad and deep in proportion to its length. The head is very wide and short and the neck is short and thick. The legs are short and set wide apart. The top and under lines are straight and level and nearly parallel. The lines usually have a

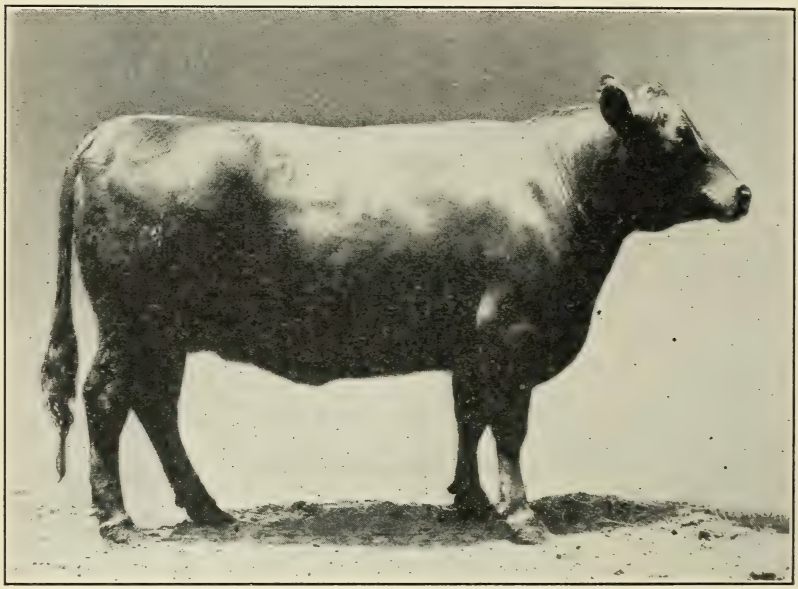

FIG. 17.—Choice grade slaughter cow

slight tendency to converge at a point in front of the animal. The flesh is thick but is slightly uneven, the fore quarters being noticeably less thick in flesh than the hind quarters. The lines of each of the different part are full, plump, and well-rounded out and the animal has a high proportion of loins, ribs, and rounds in its carcass.

The fat covering, as a rule, is very thick, but is usually noticeably uneven, being slightly less thick over the shoulders, crops, and back than over the loins and rump. In some instances the fat covering is slightly too thick or excessive, and small ties, bunches, or rolls of fat are apparent over the ribs or loins with somewhat excessive patches of fat around the tail head. Very large deposits of fat in the brisket, flanks, and twist cause these parts to be very full and distended. The fat covering is usually very firm. The thickness, degree of firmness, and distribution of the internal fat are similar in character to these characteristics of the external fat.

The animal has a very well-cared-for appearance with a moderate degree of refinement. The bones of the legs are of medium size and the hide is moderately thick and very pliable. The degree of external fatness and its breeding insures that the animal has a very large quantity of intermuscular and intramuscular fat. The joints of the legs are usually small and smooth. The hide is very loose and the hair is very oily and has a decided gloss, sheen, or silken appearance.

This grade is composed largely of purebred, crossbred, or high-grade individuals of beef-type breeding. They range from somewhat under 2 years old up. Only an occasional individual is more than 4 years old. They weigh from about 800 pounds up to 1,400 pounds or more, usually weighing from 1,000 to 1,200 pounds. They are only occasionally on sale at any of the large central markets and can not be said to have any season of abundant or scant supply.

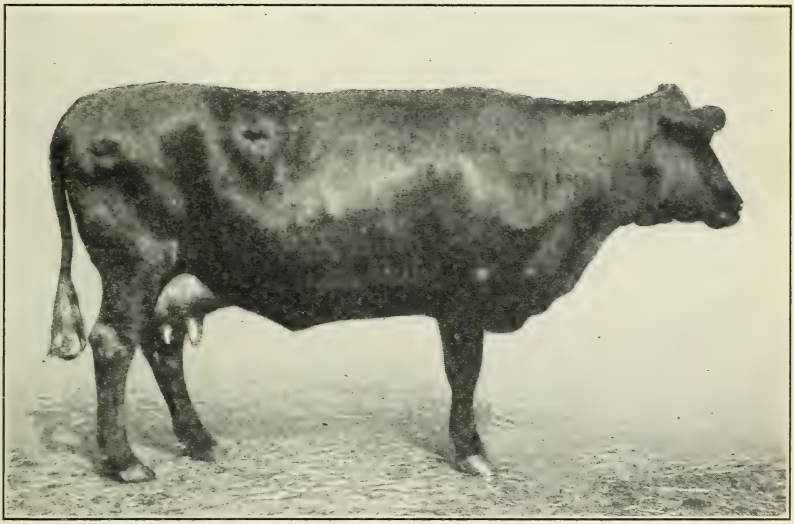

FIG. 18.—Good grade slaughter cow

Good or No. 2.—Good or No. 2 grade slaughter cows have a moderately high degree of conformation, finish, and quality. They tend to be rectangular and are moderately compact, the body being moderately broad and deep in proportion to its length. The head is moderately wide and long and the neck is moderately short and thick. The legs are moderately short and set moderately wide apart. The top line tends to be straight and level, but the underline usually sags to a slight extent. The lines of the sides tend to converge at a point in front of the animal, owing to moderately less width of body through the shoulders than through the hips. The flesh is moderately thick and uneven, the fore quarters being less thickly fleshed than the hind quarters. The lines of the different parts are moderately full, plump, and rounded out, and the animal has a moderately high proportion of loins, ribs, and rounds, as indicated by the development and balance of the different parts.

The fat covering is, as a rule, moderately thick over the loins and rump, but is usually noticeably thinner over the shoulders, crops, and back. The finish is usually slightly thin over the middle of the sides and the lower part of the shoulders and rounds. There are moderately large deposits of fat in the brisket, flanks, and twist, and these parts appear moderately full and distended. This grade includes some cows which have a fat covering which is much too thick or excessive, and in these cases there are often large ties, rolls, or bunches of fat over the loins or ribs and excessive patches of fat around the tail head. The fat is always moderately firm, and there is in each instance a high degree of correlation in the quantity, degree of firmness, and evenness of distribution between the external fat covering and the internal fat.

The animal is generally moderately neat and trim in appearance but as a rule is slightly too refined or coarse. The bones of the legs are usually slightly too small or large and the hide generally slightly too thin or thick but moderately pliable. The flesh is moderately firm and in most instances has a moderately high quantity of intermuscular and intramuscular fat. The joints of the legs are moderately smooth and small in most cases. The hide is loose to a moderate degree and the hair is moderately fine and oily, having a slight gloss or silken appearance.

This grade is composed largely of cows in which beef-type breeding predominates but includes some individuals that resemble somewhat the dairy type. They range from a little less than 2 years old up to around 6 years. They weigh from about 800 pounds up to 1,400 pounds or more, with the bulk of them weighing from 900 to 1,100 pounds. Only limited numbers of cows of this grade are received at any of the market centers. At the larger markets, however, they are usually most abundant during the late summer and fall months, and they are usually very scarce from the first of the year to around June 1.

Medium or No. 3.—Medium or No. 3 grade slaughter cows are slightly deficient in conformation, finish, and quality. They are slightly rangy or angular and the body is slightly narrow in proportion to its length. The head is slightly long and narrow, the neck is slightly long and thin and the legs are slightly long and placed slightly close together. The top and underlines are slightly irregular and oblique with the underline generally having a noticeable sag in the middle. The lines of the sides have a marked degree of obliqueness, converging toward a point in front of the animal. The animal is slightly rough over the shoulders, crops, back, ribs, loins, hips, and rump and the bones of these parts are slightly prominent. The flesh is slightly thin and uneven, the fore quarters being less thickly fleshed than the hind quarters. The lines of the different parts are slightly concave, sunken, or hollowed out, and the animal has a slightly low proportion of loins, ribs, and rounds in its carcass.

The fat covering is slightly thin over the loins and rump and is slightly thinner over the shoulders, crops, and back. There is very little fat covering over the middle of the sides and the lower part of the shoulders and thighs. There are rather small deposits of fat in the brisket and rear flanks, and the hide surrounding these parts

appears slightly shrunken and is usually somewhat wrinkled. The fat is slightly soft and the quantity, degree of firmness, and evenness of distribution of the internal fat is always closely correlated with those characteristics of the external fat.

As a rule the animal is somewhat unkempt and ill-cared-for in appearance and is usually slightly too coarse or too refined. The bones of the legs are generally slightly too small or large and the hide slightly too thin or thick and slightly unpliant. The flesh is slightly soft, and, judging from the external finish and breeding, has a relatively small quantity of intermuscular and intramuscular fat. The joints of the legs are slightly rough and large as a rule. The hide is slightly tight and the hair slightly dry and harsh and lacking in oil.

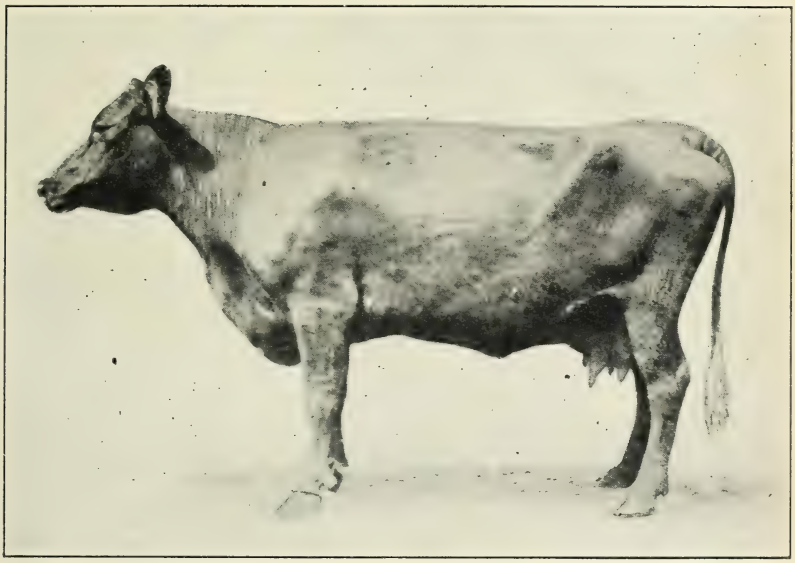

FIG. 19.—Medium grade slaughter cow

Both dairy and beef-type individuals are found in this grade and animals of the two types are about evenly divided. They range from somewhat less than 2 years old up. A large percentage of them are less than 4 years old. As a rule they weigh from 800 to 1,200 pounds, with the bulk weighing between 900 and 1,100 pounds. Limited numbers of this grade of cows are received at most markets throughout the year, but they are very scarce from January 1 until June 1 and relatively abundant from September 1 to December 1.

Common or No. 4.—Common or No. 4 grade slaughter cows are deficient in conformation, finish, and quality to a marked extent. They are rangy or angular, the body being narrow in proportion to its length. The head is long and narrow, the neck is long, thin, and tapering to a marked degree. The legs are long and placed near together. Top and underlines are irregular, and oblique to a considerable extent. The top line usually rises at the hips, causing a slight dip in the loin. The underline usually sags causing the animal

to be noticeably paunchy. The lines of the sides are irregular and oblique with much less width through the fore quarters than through the hind quarters. The animal is rough over the shoulders, hips, and rump, and the bones of these parts and the ribs are prominent to a high degree. The flesh is thin and uneven, the fleshing over the fore quarters being slightly thinner than over the hind quarters. The lines of each part have a depressed, sunken, or hollowed-out appearance. The animal generally has a small proportion of loins, ribs, and rounds in its carcass.

The fat covering is very thin over the loins and rump and is extremely thin over the top of shoulders, crops, and back. There is very little, if any, fat covering over the middle of the sides and the lower part of the shoulders and thighs. The fat deposited in the brisket, flanks, and twist is small in quantity and these parts are

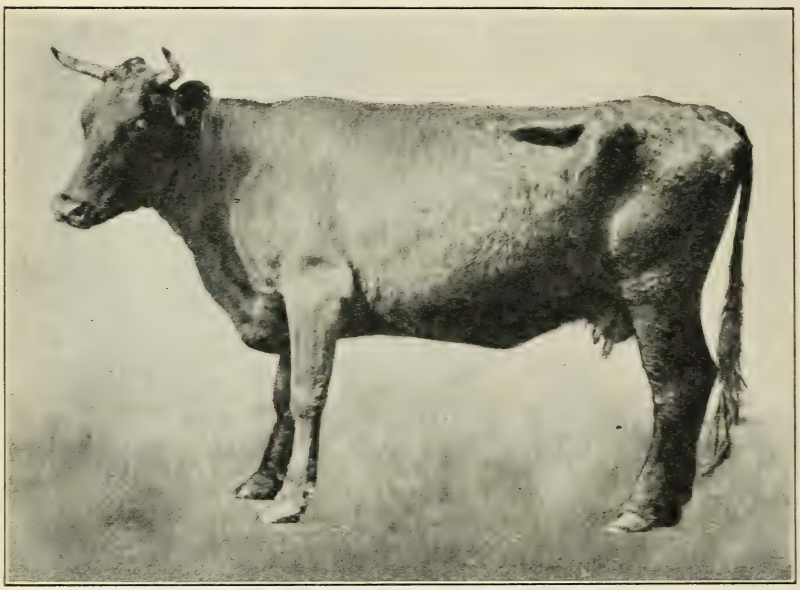

FIG. 20.—Common grade slaughter cow

nearly empty and usually much shrunken, shriveled, and wrinkled. The fat is soft and there are only insignificant quantities of internal fat which corresponds in degree of firmness and evenness of distribution with these characteristics of the external fat.

The animal has a decided lack of neatness and trimness and is usually very refined or very coarse. The bones of the legs are usually much too small or too large and the hide is generally much too thick or thin and unpliant. The flesh is soft and has practically no intermuscular or intercellular fat. The hide is tight to a marked degree. The hair is dry and harsh and lacking in oiliness in most instances.

Individuals of this grade may include beef-type animals but generally show a predominance of dairy-type breeding. They range from somewhat less than 2 years old up and are usually under 6

years old. They weigh from around 700 pounds up with the bulk weighing under 1,000 pounds. Practically all markets receive a fair supply of them throughout the year but they are usually scarce during the spring months and very plentiful during the fall season.

Cutter or No. 5.—Cutter or No. 5 grade slaughter cows are very deficient in conformation, finish, and quality. They are very rangy or angular and the body is very narrow in proportion to its length. The legs are very long and set very close together, and the head is very narrow and long. The neck is very long, thin, and tapering. Top and underlines are very irregular and oblique. The top line usually has a noticeable dip back of the shoulders and a decided dip in front of the hips. The animal is usually very paunchy. The lines of the sides are very irregular and oblique, and the animal is

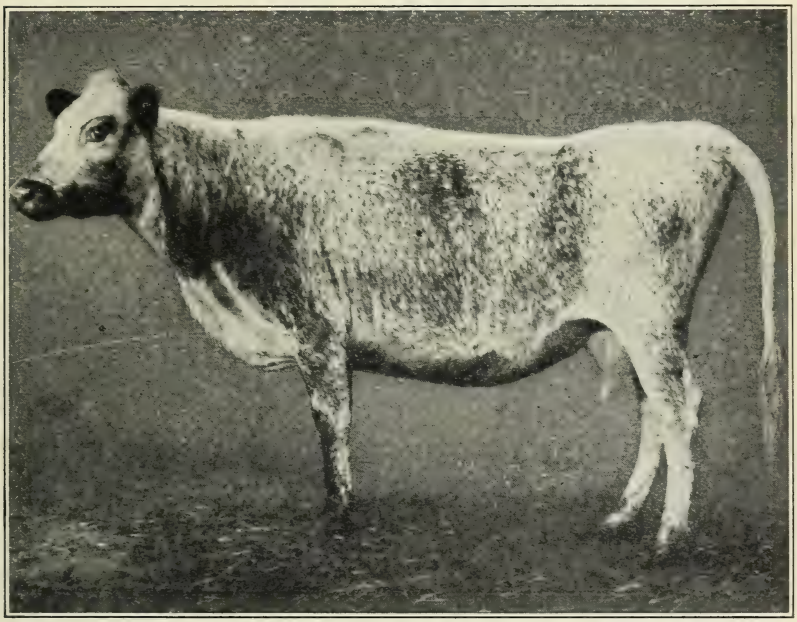

FIG. 21.—Cutter grade slaughter cow

very rough over the shoulders, hips, and rump with the bones of the shoulders and hips, the backbone and the ribs all very prominent. The flesh is very thin and the lines of each have a very sunken or concave appearance. Cows of this grade generally have a very low proportion of loins and ribs in their carcasses.

The fat covering is extremely thin over the crops, back, loins, and rump and there is practically no fat covering over other parts of the animal's body. Only very small quantities of fat are deposited in the brisket and rear flanks, and the hide at these points is usually very shrunken, shriveled, and wrinkled. The fat is very soft, and there is very little internal fat.

The animal is very much lacking in neatness and trimness of appearance, and is usually very coarse or very refined. As a rule

the bones of the legs are either very large or very small and the hide is either very thick or thin and very unpliant. The flesh is either very soft or slightly hard and has almost no fat interspersed between any of its muscles. The hide is very tight. The hair is very dry and harsh and very decidedly lacking in oil.

Individuals of this grade are only in rare instances of beef-type breeding being for the most part of pronounced dairy-type breeding or nondescripts. They range from somewhat less than 2 years old up and as a rule weigh from 800 to 1,000 pounds. They are received regularly at practically all central markets, but are relatively scarce during the late winter and spring months when considerable numbers of them sell as feeder cows. They are in very liberal supply during the summer and fall months when the market demand for them is relatively light.

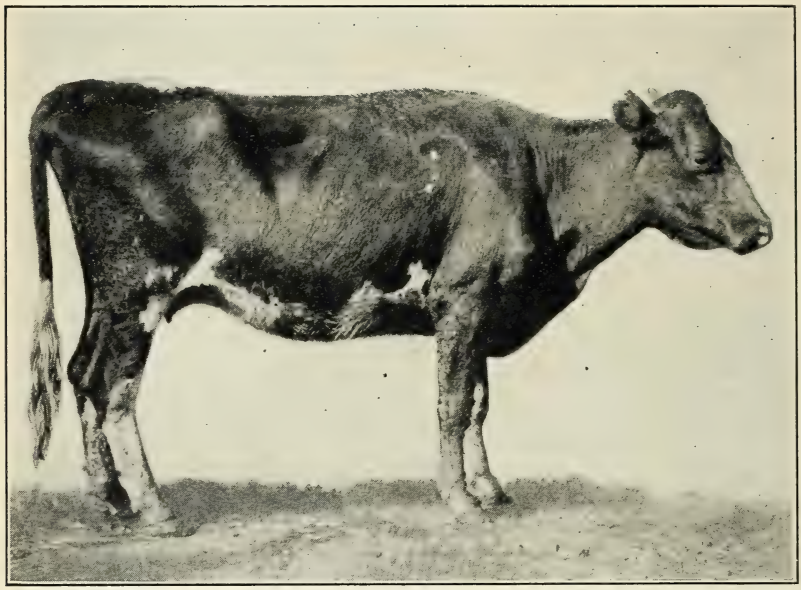

FIG. 22.—Low cutter grade slaughter cow

Low cutter or No. 6.—Low cutter or No. 6 grade slaughter cows are extremely inferior in conformation, finish, and quality. They are extremely rangy or angular, being extremely narrow in proportion to length of body. The legs are extremely long and set extremely close together, and the head is extremely long and narrow and the neck is extremely long, thin, and tapering in appearance. The top line is extremely irregular and oblique and the bottom line sags to an extreme degree, the animal as a rule being extremely paunchy. The lines of the sides are extremely irregular and oblique and the animal is extremely rough over the shoulders, crops, back, loins, hips, and rump. Practically the entire bony frame work of the animal is visible, the bones of the shoulders and hips, the backbone, and the ribs being extremely prominent. The flesh is extremely thin and the lines of each part are extremely depressed, sunken, and concave in appearance.

There is practically no fat covering on any part of the body and there are no apparent deposits either in the brisket or rear flanks, and the hide at these points usually hangs in folds and is extremely wrinkled.

The animal is unkempt and uncared for in appearance and as a rule is either extremely coarse or refined. The bones of the legs are usually either extremely large or small and the hide extremely thick or thin and extremely unpliant. The flesh is either extremely soft or hard to a marked degree.

Low cutter grade cows are, as a rule, the discards of the dairy and beef-cattle industries, a large majority of them being in a sense a by-product of the dairy industry. They are in fairly liberal supply at all markets throughout the year, but are most abundant during the summer and fall months and are comparatively scarce during the winter and spring. As a rule, they weigh less than 1,100 pounds, with most offerings weighing from 700 to 900 pounds. They range from somewhat less than 2 years old up, but usually are over 4 years old.

GRADES OF SLAUGHTER BULLS

There are five grades of slaughter bulls: Choice, or No. 1; good, or No. 2; medium, or No. 3; common, or No. 4; and cutter, or No. 5.

Choice or No. 1.—Choice or No. 1 grade slaughter bulls are superior in conformation, finish, and quality to a marked degree. They are rectangular and compact, being very broad and deep compared to length of body, with the head very broad and short, the neck very short and extremely thick, and the legs short and set very wide apart. The top line from the crops to tail head and underline are straight and even to a high degree, but there is usually a more or less rise in the top line over the withers and neck. Lines of the sides are usually slightly uneven, bulging more or less at the shoulders and rounds. The flesh is thick over the crops, back, and loins but is somewhat uneven, the shoulders and rounds being relatively thicker-fleshed than other parts. The lines at the crops, back, and loins are very full, plump, and well rounded, and the lines of the shoulders and rounds are extremely full and plump, especially in animals of the older-age selections. The animal has a moderately high proportion of loins, ribs, and rounds in its carcass.

The fat covering is thick over the crops, back, loins, and rump but is somewhat uneven, being somewhat less thick over the shoulders. The fat covering is moderately thick and extends well down over the lower parts of the rounds and shoulders. As a rule, the fat covering is smooth, although in occasional instances there are excessive patches of fat around the tail head. There are large deposits of fat in the brisket, flanks, and twist, and these parts are full and distended to a marked degree. The fat covering is firm, and the quantity of internal fat is similar to the quantity of external fat and corresponds with it in its degree of firmness and evenness of distribution.

The animal has a very neat and well-cared-for appearance, being, as a rule, moderately refined. The bones of the legs are generally of medium size and the hide usually medium thick and pliable. The flesh is firm, and the sex condition, breeding, and external fatness indicate that is has a moderately high quantity of fat mixed through-

out the lean meat. The joints of the legs are moderately large and rough. The hide is loose, and the hair has a decided gloss, sheen, or silken appearance.

Only purebred, crossbred, or high-grade individuals of the beef type are found in this grade. They range from around 1 year up in age but are seldom more than 3 years old. They weigh from around 900 pounds up, usually weighing less than 1,500 pounds. They are extremely scarce at all markets, and the few received usually have been fed with a load of other choice slaughter cattle. They are on sale in such limited numbers that they can not be said to have any season of liberal or light supply.

Good or No. 2.—Good or No. 2 grade slaughter bulls are somewhat superior in conformation, finish, and quality. They tend to be rectangular and are moderately compact, the body being moderately broad and deep in proportion to its length. The head is moderately

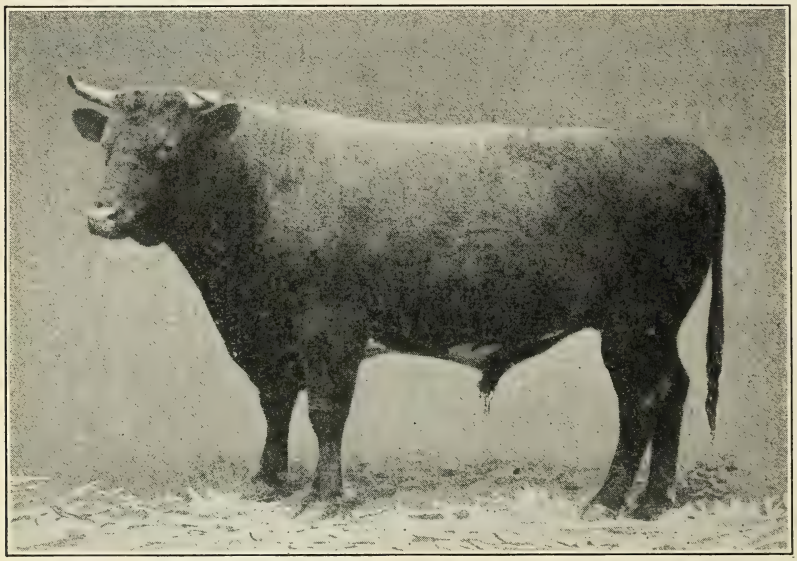

FIG. 23.—Choice grade slaughter bull

short and wide, and the neck is very short and very thick. The legs are short and placed wide apart. The top line is moderately straight, although it generally rises more or less over the withers and neck. The underline is, as a rule, fairly straight, but the lines of the sides are slightly uneven, bulging more or less at the shoulders and rounds. The flesh is moderately thick over the crops, ribs, back, and loins and slightly thicker over the shoulders and rounds, the animal being somewhat uneven in its thickness of flesh. The lines of the crops, back, and loins are moderately full and plump and the lines of the shoulders, rump, and rounds are very full, plump, and well rounded out.

The fat covering is moderately thick over the crops, back, loins, and rump, but is somewhat uneven, being noticeably thinner over the shoulders and the rounds. There is only a thin layer of fat over the middle of the sides and the lower part of the shoulders

and rounds, but, as a rule, the fat covering is smooth. There are moderately large deposits of fat in the brisket, flanks, and twist and these parts appear moderately full and distended. The fat is always moderately firm and each individual has a high degree of correlation between the quantity, evenness of distribution, and degree of firmness of its external and internal fat.

Bulls of this grade are moderately neat and trim, having a well-cared-for appearance, but as a rule are either slightly too coarse or refined. The bones of the legs are usually slightly too large or too small and the hide is generally slightly too thick or too thin but moderately pliable. The flesh is moderately firm and as a rule the joints of the legs are slightly large and rough. The hair is moderately glossy and oily as a rule.

Bulls of this grade are largely individuals in which beef-type breeding predominates. They range from around 1 year up in age

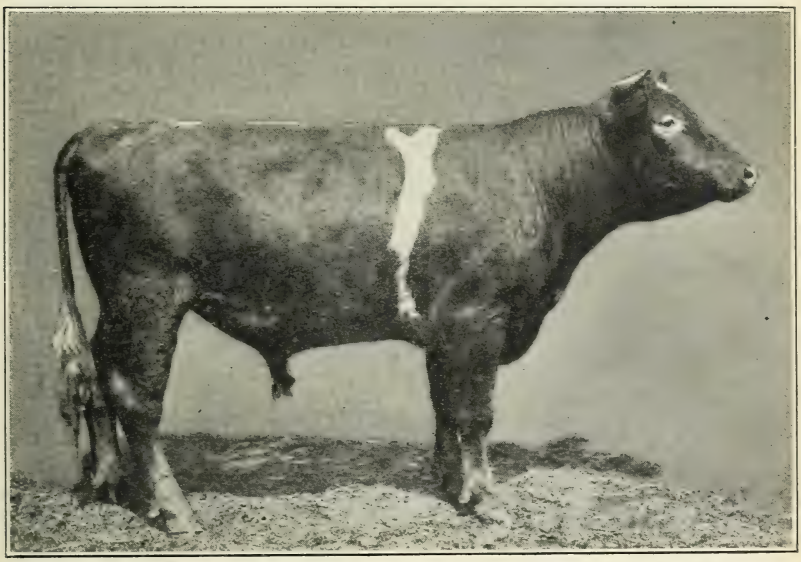

FIG. 24.—Good grade slaughter bull

and are for the most part under 4 years old. They weigh from around 800 pounds up, usually weighing from 1,000 to 1,400 pounds. Only very small numbers of them are on sale at any market at any time during the year.

Medium or No. 3.—Medium or No. 3 grade slaughter bulls are slightly deficient in conformation, finish, and quality. They are slightly rangy or angular, the body being slightly narrow and shallow in proportion to its length. The head is slightly narrow and long, but the neck is moderately short and thick. The legs are slightly long and placed slightly near together. The top line is slightly uneven, having the customary rise over the withers and neck and dipping slightly in front of the hips and back of the shoulders. The under line is slightly oblique, generally rising more or less from the fore to the rear flank. The lines of the sides are slightly uneven, bulging slightly at the shoulders and rounds. The animal is

slightly rough over the shoulders, hips, and rump. The flesh is moderately thin over the ribs and loins, but is moderately thick over the shoulders and rounds because of the characteristic development of the bull in those parts. The lines of the shoulders and rounds are moderately full, plump, and well rounded out in appearance. The animal has a low proportion of loins and ribs in its carcass.

The fat covering is slightly thin over the crops, back, and loins and there is practically no fat covering over other parts of the body, but there are usually small deposits of fat in the brisket and flanks, but these parts usually appear somewhat empty with the hide about them slightly wrinkled. The small quantity of fat found on the body is, as a rule, inclined to be soft. There is always a high degree of correlation between the quantity, evenness of distri-

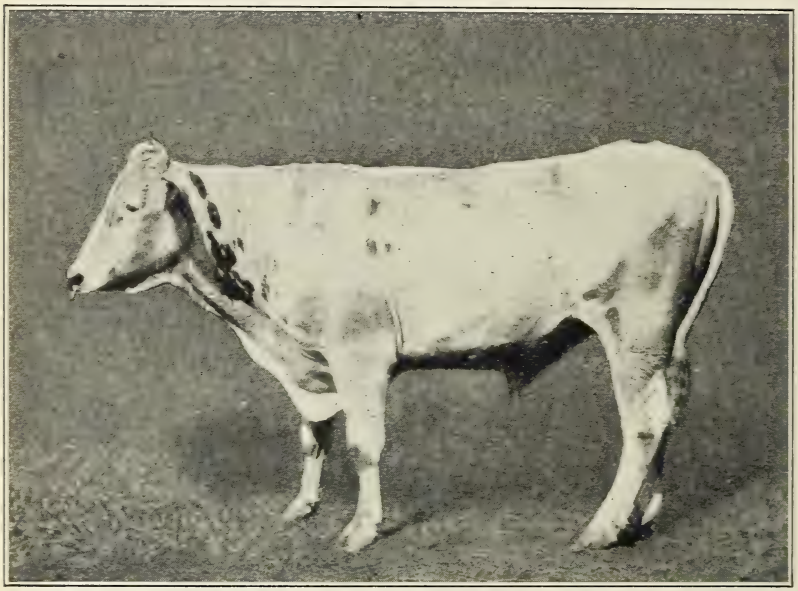

FIG. 25.—Medium grade slaughter bull

bution, and degree of firmness found in the external and internal fat.

Bulls of this grade are, as a rule, either very coarse or very refined. The bones of the legs are usually either much too large or much too small, and the hide is generally much too thick or much too thin and unpliant. The flesh is generally slightly hard but is sometimes inclined to be soft. As a rule, the joints of the legs appear rough and large to a marked degree. The hide is tight and the hair is dry and harsh.

Bulls of this grade are largely individuals of dairy-type breeding, but are frequently of pronounced beef type. They range from around 1 year and up, in age, but practically all are under 6 years old. They weigh from around 1,000 up to 2,000 pounds or more, with the usual limits extending from 1,200 to 1,600 pounds. They are marketed most liberally during the late spring and summer

months and on the markets are generally referred to as "bologna bulls."

Common or No. 4.—Common or No. 4 grade slaughter bulls are very inferior in conformation, finish, and quality. They are rangy or angular to a marked degree, the body being narrow and shallow in proportion to its length. The legs are long and set close together, and the neck is also slightly long and thin considering their class. The head is narrow and long. The top line is uneven with a marked dip back of the shoulders and in front of the hips with more or less of a rise over the withers and neck. The underline is markedly oblique, usually being comparatively high in the rear flank. Lines of the sides are uneven and the animal is rough to a marked degree over the shoulders, crops, back, hips, loins, and rump and the bones of these parts are slightly prominent. The flesh is thin over the crops,

FIG. 26.—Common grade slaughter bull

back, and loins but the animal is somewhat uneven in fleshing being slightly thicker fleshed over the shoulders and rounds.

There is usually no fat covering over any part of the body even the crops, back, and loins generally being devoid of fat. As a general rule there are no apparent deposits of fat in the brisket or flanks.

The animal is decidedly lacking in neatness and trimness of appearance and in so far as general refinement goes is either very coarse or very refined. The bones of the legs are usually either very large or very small and the hide is generally very thick or very thin and very unpliant. The joints of the legs are large and rough as a rule. The flesh is slightly hard, as a rule, but may be soft and the hide is tight to a marked degree. The hair is usually dry and harsh.

Individuals of this grade are practically all of dairy-type breeding or of no particular type of breeding but may be well-bred beef-type

animals. They range from somewhat less than 1 year old and up, and are usually under 6 years old. They weigh from around 700 pounds up to around 1,500 pounds, as a general rule. They are marketed most liberally during the late spring and summer months and are comparatively scarce during the balance of the year. This grade of bulls is also commonly referred to as "bologna bulls."

Cutter or No. 5.—Cutter or No. 5 grade slaughter bulls are extremely deficient in their conformation, finish, and quality. They are extremely rangy or angular, the body being very narrow and shallow in proportion to its length. The head is extremely long and narrow. The neck is very long and thin and the legs are extremely long and set extremely near together. The top line is very uneven and the lines of the sides are also extremely irregular. The animal is extremely rough over its shoulders, crops, back, loins, hips,

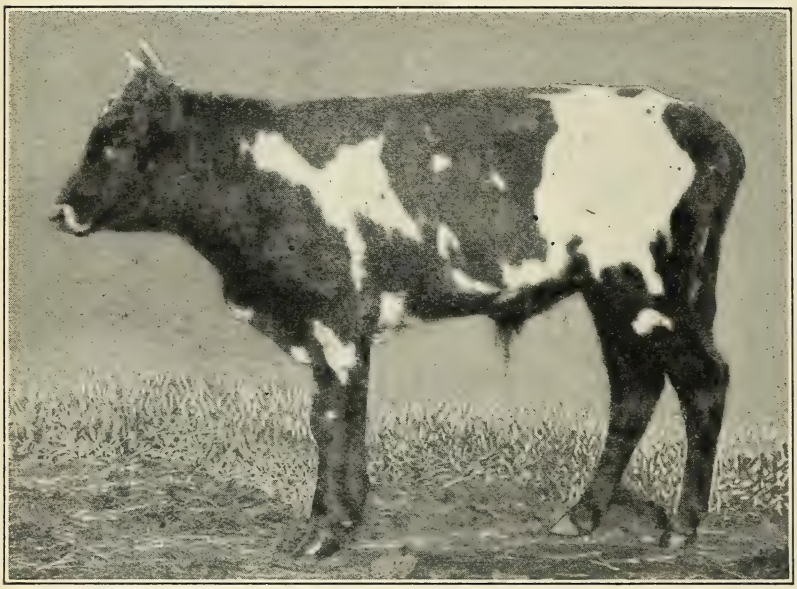

FIG. 27.—Cutter grade slaughter bull

and rump, and the entire bony framework of the animal is visible, the bones of the shoulders and hips and the backbone and the ribs being especially prominent. The flesh is extremely thin over crops, back, and loins. These parts are somewhat more thinly-fleshed than the other parts. There is no apparent covering of fat on any part of the body and the hide over the brisket and in the rear flank generally hangs in folds and is extremely wrinkled.

The animal usually has a very poorly cared for appearance, and soemtimes is extremly rough or over refined. The bones of the legs are generally extremely large, but may be extremely small, and the hide, as a rule, is extremely thick, but in most cases extremely thin and is almost invariably extremely unpliant. The flesh is, as a rule, hard or very soft, depending upon the kind of feed the animal has received. The joint of the legs are prominent and extremely rough

and coarse. The hide is extremely inelastic and tight and the hair has a dry, harsh, and lifeless appearance.

Most cutter grade bulls are so-called scrubs which are so badly mixed in breeding that the type is not fixed. They are very limited in supply throughout the year but arrive at markets in the greatest numbers during the late spring and summer months.

They range from about 1 year up in age, with the largest percentage of the supply falling within the age limits of 2 and 4 years. They almost invariably weigh less than 1,200 pounds.

GRADES OF SLAUGHTER STAGS

There are six grades of slaughter stags: Choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, cutter or No. 5, low cutter or No. 6.

Choice or No. 1.—Choice or No. 1 grade slaughter stags are much superior in conformation, finish, and quality, and in some instances closely approach steers of the same grade. They are rectangular and compact. The top and under lines are largely straight and level, but there is usually more or less rise in the top line over the withers and neck. The lines of the sides are usually slightly uneven, bulging more or less at the shoulders and rounds. The head is short and wide and the neck is very short and thick, and the legs are short and set wide apart. The body is broad and deep in proportion to its length. Each part is thickly fleshed and has very nearly its proper proportion of thickness. The shoulders and rounds, however, are slightly too thick in proportion to other parts. Each part has a high degree of fullness and plumpness, with the shoulders and rounds appearing slightly fuller than the loins, crops and back. The animal when slaughtered usually has a high proportion of loins, ribs, and rounds in its carcass.

The fat covering is thick over the top of shoulders, crops, back, loins, and rump and proportionately thick over the middle of the side and the lower part of the thigh and shoulders. There are large deposits of fat in the brisket, flanks, twist, and cod. As a rule the fat covering is smooth, even, and firm. The bones are large and the hide is thicker than that of a steer in the same grade. The degree of external fatness of the animal indicates that it has a considerable quantity of fat interspersed throughout the lean meat. The joints of the legs are moderately large and rough. The hide is loose and pliable and the hair is oily, having a decided gloss or silky appearance.

Choice stags are very largely high grade, crossbred, or purebred individuals of beef type. They range from about 2 years old up to around 4 years of age for the most part and usually weigh from 1,100 up to 1,400 pounds. They are only occasionally on sale at any of the livestock markets and seldom appear in load lots. They are usually found in loads of choice steers.

Good or No. 2.—Good or No. 2 grade slaughter stags are moderately superior in conformation, finish, and quality. They are moderately broad and deep in proportion to their length of body. The head is moderately short and wide, the neck is moderately short but somewhat too thick, with a highly developed crest. The legs are moderately short and set wide apart. The top line is moderately

straight and level, but usually has a considerable rise over the withers and neck. The underline is moderately straight, but is usually somewhat lower in the fore than in the rear flank. The lines of the sides are slightly uneven, bulging more or less at the shoulders and rounds. The crops, back, and loins are moderately thick-fleshed and have moderately full lines, and the shoulders and rounds are noticeably heavier fleshed, with the lines somewhat more full and plump. The animal has a moderately high proportion of loins, ribs, and rounds in its carcass.

The fat covering is moderately thick over the shoulders, crops, back, loins, rump, and top of shoulders but is thin over the middle part of the sides and the lower parts of the rounds and shoulders. The deposits of fat in the brisket, flanks, twist, and cod are moderately large in quantity and as a general thing the fat is smooth, even, and firm.

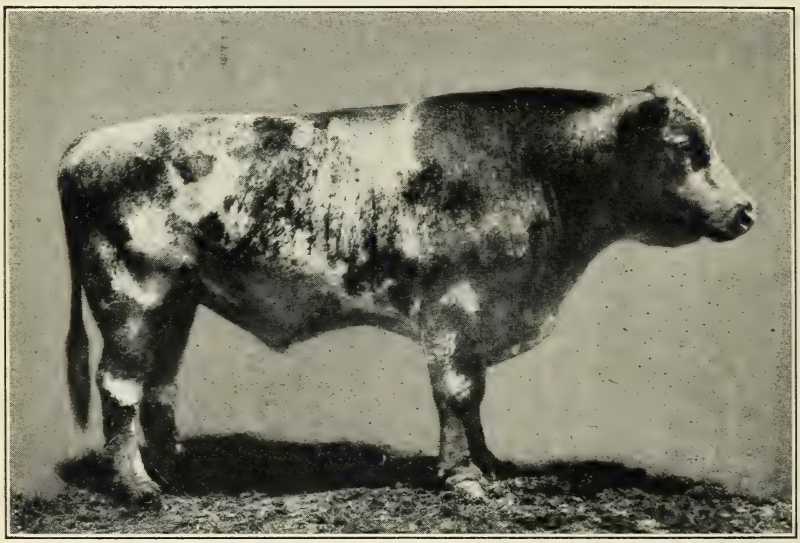

FIG. 28.—Good grade slaughter stag

The bones of the legs are usually slightly too large but may be slightly too small, and the hide is generally slightly too thick but is occasionally slightly too thin but is almost always moderately pliable. The flesh is moderately firm, and, as indicated by the animal's degree of external fatness, it has a fair quantity of fat mixed throughout the lean. The joints of the legs are slightly rough and large as a rule. The hide is usually rather loose, and the hair is slightly oily, having a slight gloss, sheen, or silken appearance.

Individuals of this grade are for the most part of pronounced beef type. They are usually over 2 years and less than 4 years old. The bulk of good grade stags range in weight from 1,100 to 1,400 pounds. Only very limited numbers of them are received at any market.

Medium or No. 3.—Medium or No. 3 grade slaughter stags are slightly deficient in conformation, finish, and quality. The general description of this grade of stags, except head, neck, and fore-

quarter development, does not differ materially from the one given for medium grade steers. As a rule, however, they have slightly thicker necks and heavier shoulders and rounds than steers of the same grade. The heavier fore-quarter development causes the proportion of loins, ribs, and rounds to be somewhat lower than in steers of the same grade.

The fat covering is thin over crops, back, and loins and there is practically no fat covering over other parts of the body. There are usually small deposits of fat, however, in the brisket and flanks but these parts usually appear somewhat empty, with the hide about them noticeably wrinkled. The small quantity of fat found on the body is as a rule slightly soft. There is practically no difference in the degree of finish possessed by medium grade stags and the corresponding grade of steers.

Stags of this grade are as a rule slightly heavier boned and the hide is slightly thicker than medium grade steers with the joints of the legs somewhat rougher and coarser. Otherwise they do not differ materially in quality.

Stags of this grade are largely individuals of beef-type breeding but are infrequently of pronounced dairy type. In age they range from about 2 years up and usually weigh less than 1,200 pounds. The number of them offered at any market at any time is extremely small.

Common or No. 4.—Common or No. 4 grade slaughter stags are inferior in conformation, finish, and quality. They are rangy or angular to a marked degree, the body being narrow and shallow in proportion to its length. The description of common grade stags does not differ greatly from that of common grade steers. The main difference is in conformation, the neck, shoulders, and rounds being slightly thicker than in the same grade of steers and often similar to the same grade of bulls. The overdevelopment of neck, shoulders, and rounds causes their carcasses to have a somewhat lower proportion of loins, ribs, and rounds than common grade steers. They are noticeably heavier and coarser boned than common grade steers with coarser, rougher joints, and somewhat thicker hides.

They are similar in breeding to common grade steers. They range from somewhat over 2 years to around 4 years in age and usually weigh from around 900 to around 1,100 pounds. They are extremely scarce at all markets.

Cutter or No. 5, and low cutter or No. 6.—The description of these grades of slaughter stags does not differ much from that given for the corresponding grades of steers. The main difference lies in conformation although they average somewhat lower in quality, with practically the same degrees of finish. Their necks, shoulders, and rounds are thicker than those of steers, causing them to have a correspondingly lower proportion of loins, ribs, and rounds. The bone and hide may be coarse and thick.

Individuals of these grades are similar in breeding to the corresponding grades of steers. They range from around 2 years old up and usually weigh from 750 to 1,000 pounds.

These grades of stags are practically unknown on any of the large central livestock markets.

FEEDER AND STOCKER CATTLE

DEFINITIONS OF FEEDERS AND STOCKERS

Feeders are animals which lack sufficient finish to produce the highest grades of meat but which show evidences of ability to take on additional flesh and fat, economically, most of the gain resulting from additional fat or finish rather than growth.

Stockers are animals which not only lack sufficient finish to produce the highest grades of meat, but are also usually immature and therefore capable of material additional growth as well as the acquisition of additional finish.

There are, however, certain general broad differences which apply to the groups as a whole but which are frequently disregarded in individual cases. The most important of these is maturity. As cattle approach maturity their rate of growth usually slows down and for this reason their ability to take on added fat or finish is increased. Hence this kind of an animal is especially suited to the man who has concentrated or fat-producing feed to dispose of. Most feeder cattle, therefore, are animals which have attained an age of approximately 18 months or over, although a considerable number of cattle are sold on the market as feeders which range from around 18 months down to about 6 months in age. These are usually purebred, high-grade, or crossbred animals of the beef type, and as a rule grade good or higher as feeders.

Young animals, on the other hand, devote much of their feed to growth rather than the accumulation of adipose tissue. Steady growth can usually be maintained by the coarser feeds almost as well as by the so-called concentrates. Hence the man who has roughage to dispose of usually selects younger animals which are still growing. Such animals then are called stockers and as a rule they are individuals which range from around 6 months up to about 18 months old. However, on the market a considerable number of animals, especially cows which are over 18 months old, are sold as stockers.

On the market feeder and stocker cattle of different sex condition, age, weight, conformation, finish, and quality sell at widely different prices largely because of differences in value which they will probably have after they have been fed and returned to the market as slaughter cattle.

Thus different market classes, age-selection groups, weight-selection groups, and grades of feeder and stocker cattle have arisen which are more or less generally recognized at most of the large central livestock markets. These have been incorporated into the system of market classes and grades of feeder and stocker cattle shown in the following schedule and which it is thought the trade will eventually adopt as standard.

From the above definitions it is apparent that animals belonging to the two groups are similar in all important respects, hence it is impossible to draw a hard and fast line between them. In market practice almost identical animals frequently sell to one man as feeders and to another as stockers. In many instances determination of the use to which they shall be put depends more upon the circumstances of the purchaser than upon the animals themselves.

Feeder and stocker cattle schedule

Class	Subclass	Age selection	Weight selection	Grade
Steers	Feeder	All ages	Lightweight 850 pounds down	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
			Mediumweight 850 to 1,000 pounds	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
			Heavyweight 1,000 pounds up	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
	Stocker	do	Lightweight 600 pounds down	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
			Mediumweight 600 to 750 pounds	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
			Heavyweight 750 pounds up	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
Heifers	Feeder	do	All weights	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
	Stocker	do	do	Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
Cows	Feeder	do	do	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
	Stocker	do	do	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
Bulls	Feeder	do	do	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.
	Stocker	do	do	Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. Inferior or No. 5.

BASIS FOR CLASSIFYING AND GRADING

Feeder and stocker cattle are divided into different classes, age-selection groups, weight-selection groups, and grades just as was done with slaughter cattle, sex condition being the basis for the different classes, age the basis for the different age-selection groups, weight the basis for the different weight-selection groups, and vary-

ing degrees of conformation, finish, and quality the basis for the different grades of feeder and stocker cattle.

Definitions of the classes, age-selection groups, weight-selection groups, and grades of feeder and stocker cattle would not differ materially from those previously given for slaughter cattle and need not be repeated here.

GRADES OF FEEDER AND STOCKER CATTLE

At most large central livestock markets trading in feeder and stocker cattle is done largely on the basis of their grade, and in actual market practice there are six more or less generally recognized grades of feeder and stocker cattle. The grades, ranging from highest to lowest grade, are fancy or No. A1, choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, and inferior or No. 5, and the detailed method of arriving at these grades is graphically illustrated in the feeder and stocker cattle-grading chart, which follows. A detailed explanation of the chart is not given here, as the method of arriving at the grade is similar to that outlined in the case of the slaughter cattle grading chart.

Feeder and stocker cattle-grading chart

Lot No. _____ Age _____ Breed _____ Date _____ Town _____
Individual No. _____ Weight _____ Class _____ Grade _____ State _____

Grade	100.00	Fancy or No. A1		90.00	Choice or No. 1		80.00	Good or No. 2		70.00	Medium or No. 3		60.00	Common or No. 4		50.00	Inferior or No. 5		40.00	Detail score	Total score
Percentage grade divisions	100.00	98.33	95.00	91.67	88.33	85.00	81.67	78.33	75.00	71.67	68.33	65.00	61.67	58.33	55.00	51.67	48.33	45.00	41.67	40.00		
General description	30.00																					
Conformation	*12.00*																					
Compactness	3.50	Very compact			Compact			Moderately compact			Slightly rangy			Rangy			Very rangy			1.40		
		3.44	3.32	3.21	3.09	2.98	2.86	2.74	2.62	2.51	2.39	2.28	2.16	2.04	1.92	1.81	1.69	1.58	1.46			
Width	2.00	Very wide			Wide			Moderately wide			Slightly narrow			Narrow			Very narrow			.80		
		1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	.97	.90	.83			
Depth	2.50	Very deep			Deep			Moderately deep			Slightly shallow			Shallow			Very shallow			1.00		
		2.46	2.38	2.29	2.21	2.12	2.04	1.96	1.88	1.79	1.71	1.62	1.54	1.46	1.38	1.29	1.21	1.12	1.04			
Top line	1.50	Straight and level			Straight and level			Tends to be straight and level			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			.60		
		1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62			
Underline	1.00	Straight and level			Straight and level			Tends to be straight and level			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			.40		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42			
Side lines	1.50	Straight and parallel			Straight and parallel			Tends to be straight and parallel			Slightly irregular and oblique			Irregular and oblique			Very irregular and oblique			.60		
		1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62			
Finish	*5.00*																					
Thickness	1.50	Moderately thick			Moderately thick			Slightly thin			Thin			Very thin			Extremely thin			.60		
		1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62			
Smoothness	1.50	Very smooth			Smooth			Moderately smooth			Slightly rough			Rough			Very rough			.60		
		1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62			
Fullness of flank	.50	Moderately full and low			Moderately full and low			Slightly high			High			Very high			Extremely high			.20		
		.49	.48	.46	.44	.42	.41	.39	.38	.36	.34	.32	.31	.29	.28	.26	.24	.22	.21			
Fullness of twist	.50	Moderately full and deep			Moderately full and deep			Slightly shallow			Shallow			Very shallow			Extremely shallow			.20		
		.49	.48	.46	.44	.42	.41	.39	.38	.36	.34	.32	.31	.29	.28	.26	.24	.22	.21			
Uniform covering	1.00	Very uniform			Uniform			Moderately uniform			Slightly uneven			Uneven			Very uneven			.40		
		.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42			

Feeder and stocker cattle-grading chart—Continued

Grade	100.00	Fancy or No. A1		90.00	Choice or No. 1		80.00	Good or No. 2		70.00	Medium or No. 3		60.00	Common or No. 4		50.00	Inferior or No. 5		40.00	Detail score	Total score
Percentage grade divisions	100.00	98.33	95.00	91.67	88.33	85.00	81.67	78.33	75.00	71.67	68.33	65.00	61.67	58.33	55.00	51.67	48.33	45.00	41.67	40.00		
General description—Continued. *Quality*	*13.00*																					
		Moderately refined			Moderately refined			Slightly too Coarse or refined			Slightly too coarse or refined			Very coarse or refined			Extremely coarse or refined				
Refinement	4.00	3.93	3.80	3.67	3.53	3.40	3.27	3.13	3.00	2.87	2.73	2.60	2.47	2.33	2.20	2.07	1.93	1.80	1.67	1.60		
		Moderately thick and pliable			Moderately thick and pliable			Slightly too thick or thin, slightly unpliant			Slightly too thick or thin and unpliant			Very thick or thin, very unpliant			Extremely thick or thin, extremely unpliant				
Hide	2.00	1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	.97	.90	.83	.80		
		Fine			Fine			Moderately fine			Slightly coarse			Very coarse			Extremely coarse				
Hair	1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
		Medium size			Medium size			Slightly too large or small			Much too large or small			Very large or small			Extremely large or small				
Bone	1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
		Firm			Moderately firm			Slightly soft			Soft			Very soft			Extremely soft				
Flesh	1.00	.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.40		
		Very quiet			Quiet			Moderately quiet			Slightly nervous			Very nervous			Wild				
Disposition	1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
		Very desirable			Desirable			Moderately desirable			Slightly undesirable			Undesirable			Very undesirable				
Color	1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
Detail description	70.00																					
		Very short and wide			Short and wide			Moderately short and wide			Slightly long and narrow			Long and narrow			Very long and narrow				
Head	[1] 2.00	1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	.97	.90	.83	.80		
		Very short			Short			Moderately short			Slightly long			Long			Very long				
Neck	[1] 1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
		Moderately full			Moderately full			Slightly deficient			Deficient			Very deficient			Extremely deficient				
Brisket	[1] 1.50	1.47	1.42	1.38	1.32	1.28	1.22	1.17	1.12	1.08	1.02	.98	.92	.87	.82	.78	.72	.68	.62	.60		
		Very wide and deep			Wide and deep			Moderately wide and deep			Slightly narrow and shallow			Narrow and shallow			Very narrow and shallow				
Chest	[1] 2.00	1.97	1.90	1.83	1.77	1.70	1.63	1.57	1.50	1.43	1.37	1.30	1.23	1.17	1.10	1.03	.97	.90	.83	.80		
		Wide and deep			Wide and deep			Moderately wide and deep			Slightly narrow and shallow			Narrow and shallow			Very narrow and shallow				
Shoulder	[1] 6.00	5.90	5.70	5.50	5.30	5.10	4.90	4.70	4.50	4.30	4.10	3.90	3.70	3.50	3.30	3.10	2.90	2.70	2.50	2.40		
	[2] 3.00	Moderately thick			Moderately thick			Slightly thin			Thin			Very thin			Extremely thin				
		2.95	2.85	2.75	2.65	2.55	2.45	2.35	2.25	2.15	2.05	1.95	1.85	1.75	1.65	1.55	1.45	1.35	1.25	1.20		
		Very short			Short			Moderately short			Slightly long			Very long			Extremely long				
Fore legs	[1] 1.00	.98	.95	.92	.88	.85	.82	.78	.75	.72	.68	.65	.62	.58	.55	.52	.48	.45	.42	.40		

Crops	[1] 2.00	Moderately full	Moderately full	Slightly deficient	Deficient	Very deficient	Extremely deficient			
		1.97 | 1.90 | 1.83	1.77 | 1.70 | 1.63	1.57 | 1.50 | 1.43	1.37 | 1.30 | 1.23	1.17 | 1.10 | 1.03	.97 | .90 | .83	.80		
	[2] 1.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		.98 | .95 | .92	.88 | .85 | .82	.78 | .75 | .72	.68 | .65 | .62	.58 | .55 | .52	.48 | .45 | .42	.40		
Back	[1] 4.00	Straight and wide	Straight and wide	Moderately straight and wide	Slightly low and narrow	Low and narrow	Very low and narrow			
		3.93 | 3.80 | 3.67	3.53 | 3.40 | 3.27	3.13 | 3.00 | 2.87	2.73 | 2.60 | 2.47	2.33 | 2.20 | 2.07	1.93 | 1.80 | 1.67	1.60		
	[2] 2.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		1.97 | 1.90 | 1.83	1.77 | 1.70 | 1.63	1.57 | 1.50 | 1.43	1.37 | 1.30 | 1.23	1.17 | 1.10 | 1.03	.97 | .90 | .83	.80		
Ribs or sides	[1] 1.50	Very long and well sprung	Long and well sprung	Moderately long and well sprung	Slightly short and flat	Short and flat	Very short and flat			
		1.47 | 1.42 | 1.38	1.32 | 1.28 | 1.22	1.17 | 1.12 | 1.08	1.02 | .98 | .92	.87 | .82 | .78	.72 | .68 | .62	.60		
	[2] 2.50	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		.49 | .48 | .46	.44 | .42 | .41	.39 | .38 | .36	.34 | .32 | .31	.29 | .28 | .26	.24 | .22 | .21	.20		
Belly	[1] 1.00	Not paunchy	Not paunchy	Slightly paunchy	Paunchy	Very paunchy	Extremely paunchy			
		.98 | .95 | .92	.88 | .85 | .82	.78 | .75 | .72	.68 | .65 | .62	.58 | .55 | .52	.48 | .45 | .42	.40		
Rear flank	[1] 1.50	Very low	Low	Moderately low	Slightly high	Very high	Extremely high			
		.49 | .48 | .46	.44 | .42 | .41	.39 | .38 | .36	.34 | .32 | .31	.29 | .28 | .26	.24 | .22 | .21	.20		
	[2] 2.50	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		.49 | .48 | .46	.44 | .42 | .41	.39 | .38 | .36	.34 | .32 | .31	.29 | .28 | .26	.24 | .22 | .21	.20		
Loin	[1] 10.00	Wide	Wide	Moderately wide	Slightly narrow	Narrow	Very narrow			
		9.83 | 9.50 | 9.17	8.83 | 8.50 | 8.17	7.83 | 7.50 | 7.17	6.83 | 6.50 | 6.17	5.83 | 5.50 | 5.17	4.83 | 4.50 | 4.17	4.00		
	[2] 5.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		4.92 | 4.75 | 4.58	4.42 | 4.25 | 4.08	3.92 | 3.75 | 3.58	3.42 | 3.25 | 3.08	2.92 | 2.75 | 2.58	2.42 | 2.25 | 2.08	2.00		
Hips	[1] 3.00	Wide	Wide	Moderately wide	Slightly narrow	Narrow	Very narrow			
		2.95 | 2.85 | 2.75	2.65 | 2.55 | 2.45	2.35 | 2.25 | 2.15	2.05 | 1.95 | 1.85	1.75 | 1.65 | 1.55	1.45 | 1.35 | 1.25	1.20		
	[2] 1.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		.98 | .95 | .92	.88 | .85 | .82	.78 | .75 | .72	.68 | .65 | .62	.58 | .55 | .52	.48 | .45 | .42	.40		
Rump	[1] 4.00	Uniformly wide	Uniformly wide	Moderately wide and uniform	Slightly narrow and peaked	Narrow and peaked	Very narrow and peaked			
		3.93 | 3.80 | 3.67	3.53 | 3.40 | 3.27	3.13 | 3.00 | 2.87	2.73 | 2.60 | 2.47	2.33 | 2.20 | 2.07	1.93 | 1.80 | 1.67	1.60		
	[2] 2.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		1.97 | 1.90 | 1.83	1.77 | 1.70 | 1.63	1.57 | 1.50 | 1.43	1.37 | 1.30 | 1.23	1.17 | 1.10 | 1.03	.97 | .90 | .83	.80		
Tail head	[1] 1.50	Even with back line	Even with back line	Tends to be even with back line	Slightly high or drooped	High or drooped	Very high or drooped			
		1.47 | 1.42 | 1.38	1.32 | 1.28 | 1.22	1.17 | 1.12 | 1.08	1.02 | .98 | .92	.87 | .82 | .78	.72 | .68 | .62	.60		
	[2] 2.50	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		.49 | .48 | .46	.44 | .42 | .41	.39 | .38 | .36	.34 | .32 | .31	.29 | .28 | .26	.24 | .22 | .21	.20		
Thigh	[1] 6.00	Very wide and deep	Wide and deep	Moderately wide and deep	Slightly narrow and shallow	Narrow and shallow	Very narrow and shallow			
		5.90 | 5.70 | 5.50	5.30 | 5.10 | 4.90	4.70 | 4.50 | 4.30	4.10 | 3.90 | 3.70	3.50 | 3.30 | 3.10	2.90 | 2.70 | 2.50	2.40		
Twist	[1] 4.00	Very deep	Deep	Moderately deep	Slightly shallow	Shallow	Very shallow			
		3.93 | 3.80 | 3.67	3.53 | 3.40 | 3.27	3.13 | 3.00 | 2.87	2.73 | 2.60 | 2.47	2.33 | 2.20 | 2.07	1.93 | 1.80 | 1.67	1.60		
	[2] 2.00	Moderately thick	Moderately thick	Slightly thin	Thin	Very thin	Extremely thin			
		1.97 | 1.90 | 1.83	1.77 | 1.70 | 1.63	1.57 | 1.50 | 1.43	1.37 | 1.30 | 1.23	1.17 | 1.10 | 1.03	.97 | .90 | .83	.80		
Hind legs	[1] 1.00	Very short	Short	Moderately short	Slightly long	Very long	Extremely long			
		.98 | .95 | .92	.88 | .85 | .82	.78 | .75 | .72	.68 | .65 | .62	.58 | .55 | .52	.48 | .45 | .42	.40		

[1] Conformation.

[2] Finish.

GRADES OF FEEDER AND STOCKER STEERS

There are six grades of feeder and stocker steers: Fancy or No. A1, choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, and inferior or No. 5.

Fancy or No. A1.—Fancy or No. A1 grade feeder and stocker steers closely approach the top of the standard of conformation, finish, and quality. The head is very short and wide and the neck is very short. They are very compact, the body being very wide and deep in proportion to its length, with legs which are set very wide apart and are very short in proportion to depth of body. Top and underlines are approximately straight and level and the same is true of the lines of the sides. The chest is very wide and deep and the animal has an exceptionally good middle, being very full in

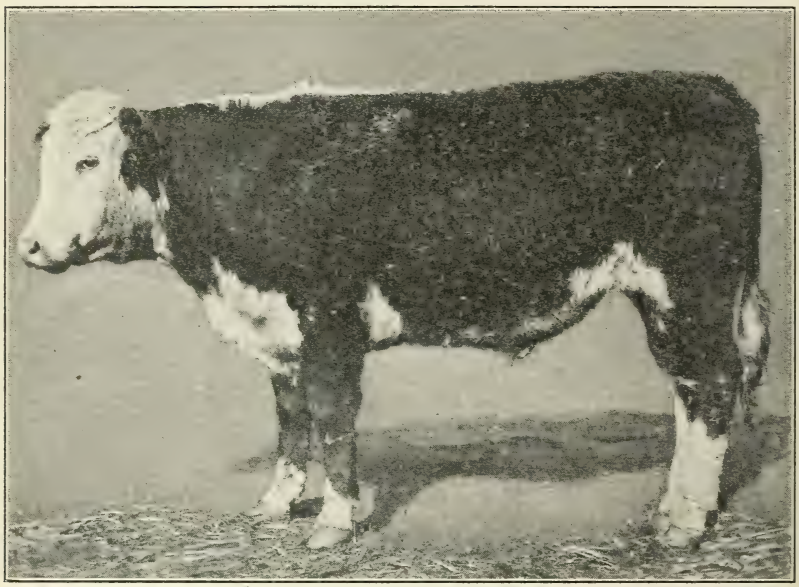

FIG. 29.—Fancy grade feeder steer

the crops with a very straight wide back and loin, very long, well-sprung ribs and a belly which is very wide and deep but not paunchy. The rear flank is low. The hips are wide; the rump wide, deep, and even and the tail head is even with the back line. The thigh is very wide and deep and the twist is very deep with the seam of the twist appearing very low. All parts are moderately thick in fleshing with the fleshing very even, each part having its proper proportionate thickness. The thickness of fleshing is such that the lines of the animal appear moderately plump, full, and well rounded. The different parts are balanced in a superior manner, insuring that the animal when finished and slaughtered will produce a very high percentage of ribs, loins, and rounds.

The animal usually carries a moderately thick covering of fat which is very smooth and very uniform in its distribution. There are

moderately large deposits of fat in the brisket, flank, twist, and cod which cause these parts to be moderately distended or rounded out.

The animal is moderately refined, the head being clean-cut and chiseled in appearance. The bones of the legs are of medium size with the joints smooth and free from coarseness. The hide is pliable and moderately thick, and the hair is fine. The animal appears very quiet in disposition, having eyes which are large and bright with a placid expression. The flesh of the animal is usually firm.

Steers of this grade are always high-grade, crossbred or purebred individuals of beef type. Load lots of this grade must be uniform in color, age, weight, and breeding. The usual age limits for stocker steers of this grade are 6 to 18 months, whereas feeder steers of the same grade range from 18 to 30 months old for the most part or in a few instances somewhat older. They are very scarce at all

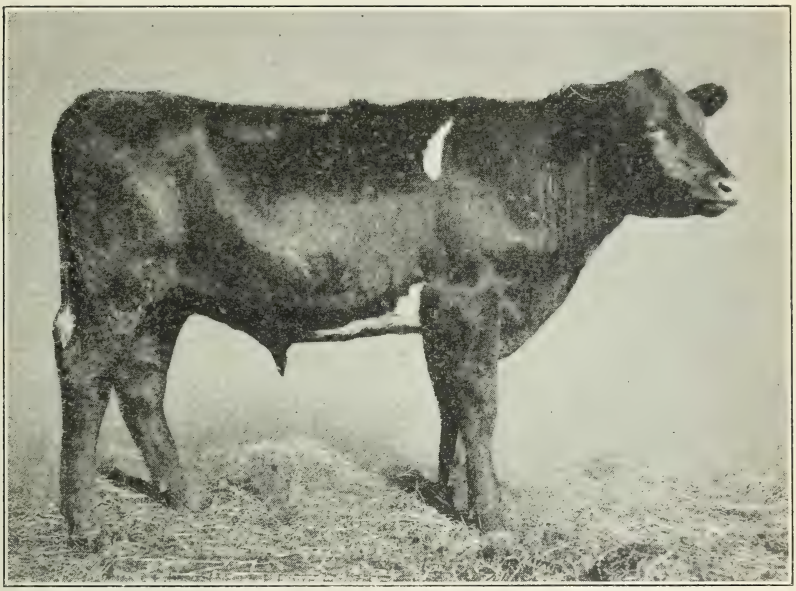

FIG. 30.—Choice grade feeder steer

markets but are usually found in limited numbers at a few of the larger marketing centers. They are most plentiful during the late summer and fall months and scarcest during the winter and spring months.

Choice or No. 1.—Choice or No. 1 grade feeder and stocker steers are markedly superior in conformation, finish, and quality. The head is short and wide and the neck is also short. They are compact, the body being wide and deep in proportion to its length, with legs which are set wide apart and are short in proportion to depth of body. Top and underlines are approximately straight and level and the lines of the sides are straight and parallel. The chest is wide and deep and the animal has an exceptionally good middle, being full in the crops with a straight wide back and loin; it has long, well-sprung ribs and a belly which is wide and deep but not paunchy,

together with a low rear flank. The hips are wide; the rump is wide, deep, and even and the tailhead is even with the back line. The thigh is wide and deep and the twist is deep, with the seam of the twist appearing low. All parts are moderately thick in fleshing, with the fleshing very even, each part having very nearly its proper proportionate thickness. The thickness of the fleshing of the animal is such that its lines appear moderately plump, full, and rounded out. The different parts are balanced and developed in a manner which insures that the animal when finished and slaughtered will produce a high percentage of ribs, loins, and rounds.

Individuals of this grade have a moderately thick covering of fat which is very smooth and uniform in its distribution. There are moderately large deposits of fat in the brisket, flank, twist, and cod which cause these parts to be moderately distended or rounded out.

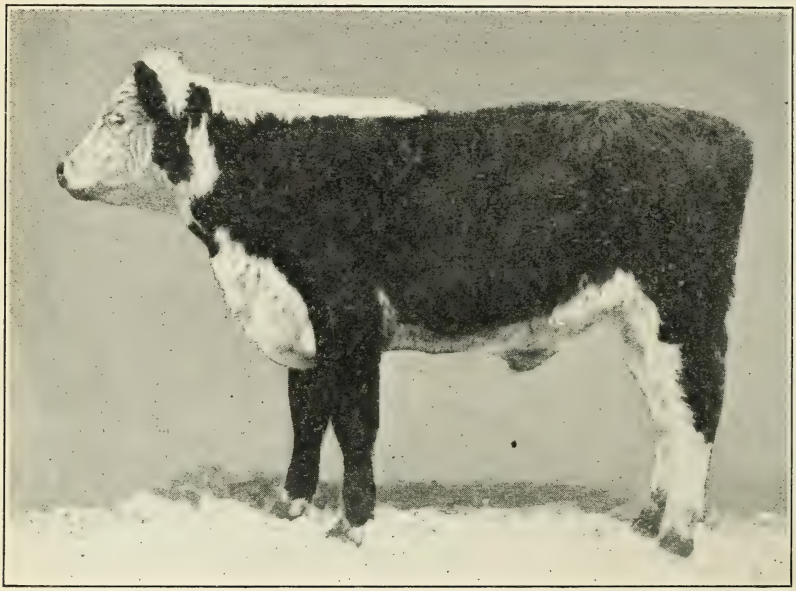

FIG. 31.—Choice grade stocker steer

The animal has a moderate degree of refinement, the head being clean-cut and chiseled in appearance. The bones of the legs are of medium size, with the joints smooth and free from coarseness. The hide is pliable and of medium thickness and the hair is fine. The eyes are light and bright, with a placid expression, indicating that the animal has a quiet disposition and will be a good feeder in the feed lot.

Steers of this grade are almost invariably high-grade, crossbred, or purebred individuals of beef type. Load lots of this grade are often mixed as regards the different breeds of beef-type cattle and may vary considerably in color and vary somewhat in age and weight. Stocker steers of this grade usually range from around 6 up to 18 months in age, whereas feeder steers of the same grade range from around 18 up to 30 months old in most instances. They

are usually on sale at most of the larger central markets during the late summer and fall months, but are offered only irregularly and in limited numbers during the remainder of the year.

Good or No. 2.—Good or No. 2 grade feeder and stocker steers have a moderately high degree of conformation, finish, and quality. The head is moderately short and wide and the neck is moderately short. They are moderately compact, the body being moderately wide and deep in proportion to its length, with legs which are set moderately wide apart and are moderately short in proportion to depth of body. Top and under lines tend to be straight and level, and the lines of the sides tend to be straight and parallel. The chest is moderately wide and deep and the animal has a good middle, being moderately full in the crops with a moderately wide back and loin;

FIG. 32.—Good grade feeder steer

it has noticeably long, well-sprung ribs and a belly which is moderately wide and deep but slightly paunchy, together with a moderately low rear flank. The hips are noticeably wide and the rump is moderately wide and deep. The tail head is usually slightly high or drooped in comparison with the rest of the top line. The thigh is moderately wide and deep and the twist is also moderately deep, with the seam of the twist appearing moderately low. All parts are slightly thin in fleshing but the fleshing is moderately even, each part tending to have its proper proportionate thickness. Because of the slightly thin fleshing of the animal the bones of the shoulders and the hips are often slightly prominent, but the lines of the animal tend to be straight. The way in which the different parts of the animal are balanced indicates that it will have a moderately high percentage of ribs, loins, and rounds in its carcass when finished and slaughtered.

The animal usually has a slightly thin but moderately smooth covering of fat which is moderately uniform in its distribution. There are slightly small deposits of fat in the brisket, flank, twist, and cod.

The animal is usually slightly too coarse or too refined, but reflects reasonably good beef-type breeding and care. The bones of the legs are usually slightly too large or small. The joints of the legs may be slightly rough and coarse. The hide is slightly too thick or too thin, slightly unpliant, and the hair is moderately fine. The flesh is slightly soft as a rule.

Steers of this grade are usually high-grade, crossbred, or purebred individuals of beef type, but some of them occasionally show traces of dairy-type breeding, which is indicated by their color markings. Load lots of this grade usually vary more or less as regards the

FIG. 33.—Good grade stocker steer

different breeds of beef-type cattle. The age limits for feeder steers and stocker steers of this grade are approximately the same as those for the choice and fancy grades. They are usually on sale throughout the year at the larger livestock markets, where they are offered most liberally during the late summer and fall months, with their season of scarcity most often occurring during the late winter and spring months.

Medium or No. 3.—Medium or No. 3 grade feeder and stocker steers are slightly deficient in conformation, finish, and quality. The head is slightly long and narrow and the neck is also slightly long. They are slightly rangy, the body being slightly narrow and often slightly shallow in proportion to its length with legs which are set slightly too close together and are slightly long in proportion to depth of body. Top and under lines are slightly irregular and

oblique as are the lines of the sides. The chest is slightly narrow and shallow and the animal has a slightly poor middle being slightly sunken or hollow in the crops with a slightly narrow back and loin; it has slightly short, flat ribs and a belly which is paunchy and a rear flank which is noticeably high. The hips are slightly narrow and the rump is slightly narrow and peaked, and the tail head is slightly high or drooped in comparison with the rest of the top line. The thigh is slightly narrow and tapering and the twist is slightly shallow with the seam of the twist appearing slightly high. All parts are thin in fleshing and the fleshing is usually slightly uneven. Because of the thinness of fleshing the bones of the shoulders, the hips, as well as the backbone and the ribs appear prominent to a marked degree. The different parts of the animal

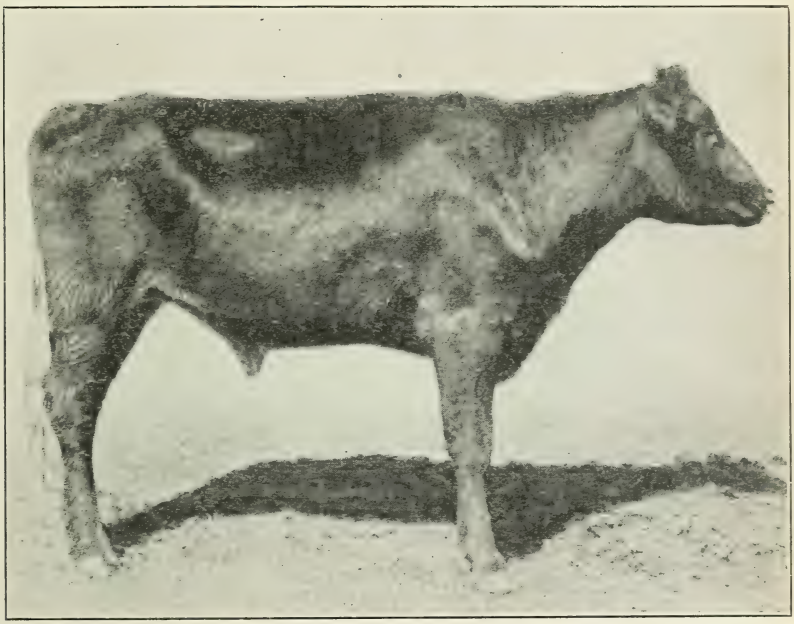

FIG. 34.—Medium grade feeder steer

are so balanced that it is apparent that it will have a slightly low percentage of ribs, loins, and rounds in its carcass when it is finished and slaughtered.

Individuals of this grade have a thin covering of fat over the shoulders, crops, back, loins, and rump. Only small quantities of fat are deposited in the brisket, flanks, twist, and cod and the hide at these points is somewhat wrinkled. The fat covering is not of sufficient thickness to cause any apparent roughness or lack of uniformity in its distribution.

The animal is coarse and slightly lacking in refinement, usually evidencing rather poor beef-type breeding. The bones of the legs are much too large or too small. The hide is much too thick or too thin and tight and unpliable. The hair is slightly coarse, dry, and harsh as a rule, and the flesh is soft in most instances.

Steers of this grade usually have a predominance of the color markings of one or the other of the different breeds of beef-type cattle. Their general conformation as well as their color markings, however, usually indicates that they are more or less crossed in breeding with dairy-type animals. They are regularly on sale throughout the year at the larger livestock markets. During the summer and fall months their supply often exceeds the demand but they are inclined to be scarce during the late winter and early spring months. Stocker steers of this grade range from around 8 months up to 18 months old as a rule and feeders from around 18 months up to 3 years old.

Common or No. 4.—Common or No. 4 grade feeder and stocker steers are much deficient in their conformation, finish, and quality. The head is long and narrow and the neck is also long. They are

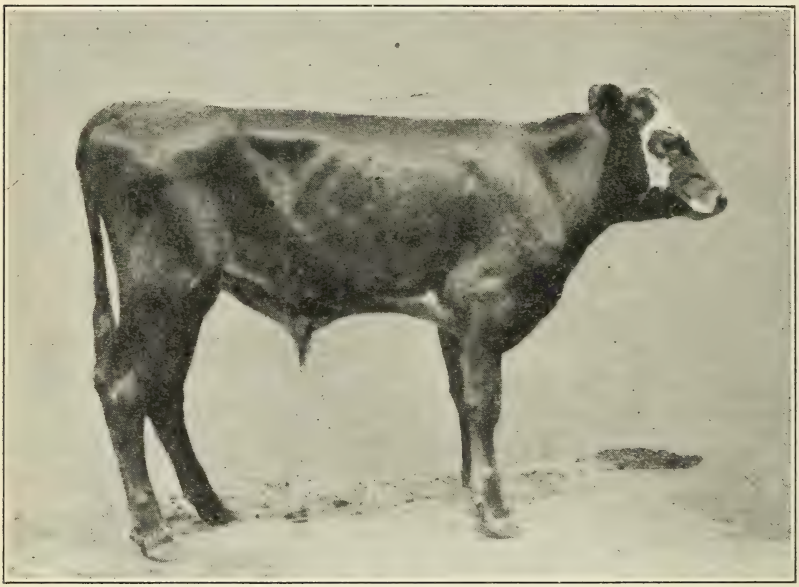

FIG. 35.—Medium grade stocker steer

rangy to a marked degree, the body being narrow and oftentimes shallow in proportion to its length. The legs are set close together and are very long in proportion to depth of body. Top and underlines are irregular and oblique as are the lines of the sides. The chest is narrow and shallow and the animal has a poor middle. The crops, as a rule, are hollow and depressed and the back and loin are narrow and low in many instances. The ribs are short and flat. The belly is very paunchy and the rear flank is high. The hips are narrow; the rump is narrow and peaked with the tail head much too high or drooped. The thigh is narrow and deficient and the twist is shallow with the seam of the twist appearing shallow and high. All parts are very thin in fleshing, causing the bones of the shoulders and the hips, the backbone, and the ribs to appear prominent to a marked degree. The way in which the different parts of the animal are

balanced indicates that it will have a low percentage of ribs, loins, and rounds in its carcass when it is finished and slaughtered.

The fat covering is thin over the shoulders, crops, back, loans, and rump. Only very small quantities of fat are deposited in the brisket, flanks, twist, and cod, and at these parts the hide is usually much wrinkled. There is practically no fat covering over other parts of the animal. The fat covering is not sufficient to cause any apparent unevenness in its distribution.

Steers of this grade are for the most part unkempt, ill-bred, and ill-cared-for in their general appearance. The bones of the legs are very large or very small. The hide is very thick or thin and very unpliant and the hair generally appears dry and harsh. The flesh is usually very soft or may be slightly hard in some instances.

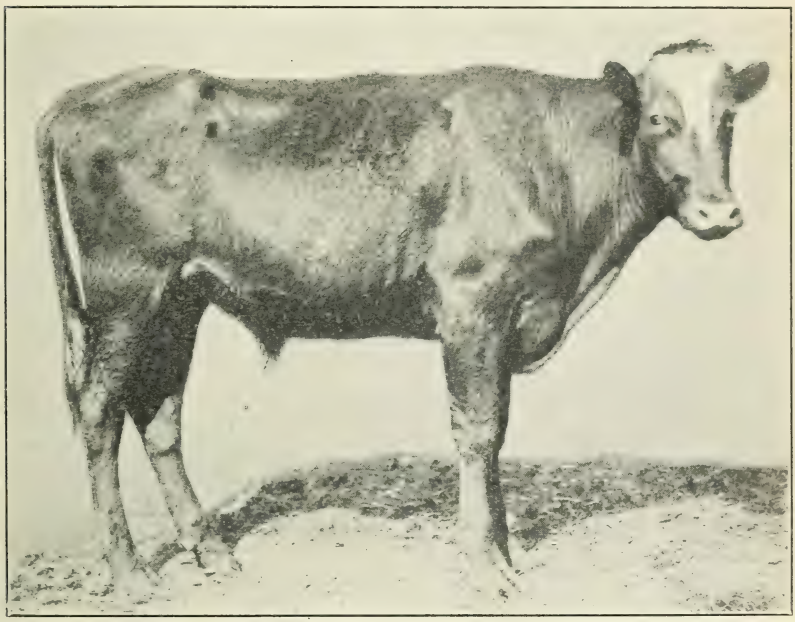

FIG. 36.—Common grade feeder steer

Steers of this grade usually indicate by their general conformation that they are of pronounced dairy type or nondescript breeding, but they generally have a predominance of the color markings of beef-type animals. Stocker steers of this grade usually range from 1 year up to around 2 years in age with feeder steers of the same grade falling within the age limits of 2 to 3 years. They are regularly on sale at most markets throughout the year. During the late summer and fall months the supply is generally in excess of the demand, but their supply and the demand is fairly well balanced during the late winter and spring months.

Inferior or No. 5.—Inferior or No. 5 grade feeder and stocker steers are very deficient in their conformation, finish, and quality. The head is very long and narrow and the neck is also very long. They are very rangy, the body being very narrow and often very shallow

in proportion to its length. The legs are set very close together and are extremely long in proportion to the depth of body. Top and underlines as well as the lines of the sides are very irregular and oblique. The chest is very narrow and shallow and the animal has a very poor middle as a rule. The crops are very empty and hollow and the back and loin very narrow. The ribs are very short and flat and the animal is extremely paunchy with the rear flank appearing very high. The hips are very narrow and the rump is very narrow and peaked, with the tail head appearing very high or drooped when compared with the back line. The thigh is very narrow and tapering and the twist is very shallow and the seam of the twist is very high. All parts are extremely thin in fleshing and the bones of the shoulders, the hips, the backbone, and the ribs are all extremely prominent. The parts of the animal are balanced

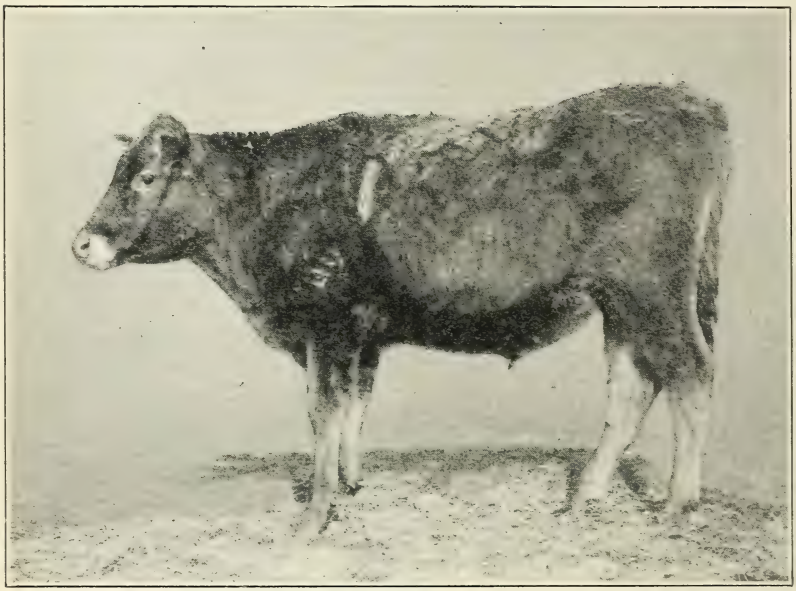

FIG. 37.—Common grade stocker steer

so that it will have a very low percentage of ribs, loins, and rounds in its carcass when it is finished and slaughtered.

The fat covering is extremely thin over the shoulders, crops, back, loins, and rump. There are extremely small deposits of fat in the brisket, flanks, twist, and cod and the hide at these points is usually very much wrinkled. There is no apparent fat covering over any of the other parts of the animal.

Steers of this grade have a very unkempt, ill-bred, and ill-cared-for appearance as a general rule. The bones of the legs are either extremely large or extremely small. The hide is extremely thick or thin and is extremely tight and unpliant. The hair as a rule is very coarse, dry, and harsh. The flesh is extremely soft or moderately hard as a general rule.

Steers of this grade are usually of very decided dairy type or nondescript breeding as evidenced by their conformation, and a con-

siderable number of them have the color markings, indicative of dairy-type breeding. Stocker steers of this grade usually range from around 1 year up to about 2 years of age, whereas the same grade of feeder steers are usually from 2 to 3 years old. They are regularly on sale at practically all markets throughout the year. During the late summer and fall months they are greatly in excess of the demand. The demand for them is not brisk at any time, although they move fairly well during the late winter and early spring.

GRADES OF FEEDER AND STOCKER HEIFERS

There are six grades of feeder and stocker heifers: Fancy, or No. A1; choice, or No. 1; good, or No. 2; medium, or No. 3; common, or No. 4; and inferior, or No. 5.

Fancy, or No. A1.—Fancy, or No. A1, grade feeder and stocker heifers are very nearly perfect in conformation, finish, and quality. The head is very short and wide and the neck is also very short. They are very compact, the body being very wide and deep in proportion to its length, and the legs, which are set very wide apart, are very short in proportion to depth of body. Top and underlines are straight and level, and the lines of the sides are approximately straight and parallel. The animal has an exceptionally good middle, the crops being very full and the chest very wide and deep. The back and loins are straight and wide and the ribs are very long and well sprung. The belly is wide and deep but not paunchy and the rear flank is very low. The hips are wide; the rump is uniformly wide and deep and the tail head is even with the back line. The thigh is very wide and deep and the twist is also very deep with the seam of the twist appearing very low. All parts are moderately thick in fleshing with the fleshing being very even, each part having its proper proportionate thickness. The thickness of fleshing is such that the lines of the animal appear moderately plump, full, and well-rounded. The way in which the different parts are developed and balanced insures that the animal when finished and slaughtered will have a very high percentage of ribs, loins, and rounds in its carcass.

The animal has a moderately thick covering of fat which is smooth and very uniform in its distribution. There are moderately large deposits of fat in the brisket, flanks, and twist, causing these parts to be slightly distended or rounded out.

The animal is moderately refined and very neat and trim in its general appearance. The bones of the legs are of medium size, with the joints very smooth and free from coarseness. The hide is loose and moderately pliable and of medium thickness and the hair is fine. The eyes are large and bright with a placid expression indicating that that animal has a very quiet disposition. The flesh, as a general rule, is firm.

Heifers of this grade are always high-grade, crossbred, or purebred individuals of beef type. Load lots of this grade are uniform in breeding, color, age, and weight. The usual age limits for feeder heifers of this grade are 18 to 30 months, whereas stocker heifers of the same grade range from 6 to 18 months old for the most part. They are extremely scarce at all markets, although limited numbers

of them, which are practically all of an age to be termed stockers, are offered during the late summer and fall months.

Choice or No. 1.—Choice or No. 1 grade feeder and stocker heifers are much superior in conformation, finish, and quality. The head is short and wide and the neck is short. They are compact, the body being wide and deep in proportion to its length, and the legs, which are set wide apart, are short in proportion to depth of body. Top and underlines are straight and level but not infrequently the lines of the sides tend to converge at a point in front of the animal owing to slightly less width through the shoulders than through the hips. The animal has a good middle, the crops being moderately full and the chest wide and deep; the back and loins are straight and wide and the ribs are long and well sprung. The belly is wide and deep but not paunchy, and the rear flank is low. The hips are wide; the rump is wide and deep and the tail head is set even with the rest of the back line. The thigh is wide and deep and the twist is also deep, with the seam of the twist appearing low. The fleshing of each part is moderately thick and has its proper proportionate thickness. The lines of the animal appear slightly plump, full, and well-rounded. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a high percentage of ribs, loins, and rounds in its carcass.

The fat covering of the animal is moderately thick and is smooth and uniform in its distribution. There are moderately large deposits of fat in the brisket, flanks, and twist, causing these parts to be moderately distended or rounded out.

The animal is moderately refined and neat and trim in general appearance. The bones of the legs are of medium size with the joints smooth and free from coarseness. The hide is loose, moderately pliable, and of medium thickness and the hair is fine. The eyes are large and bright, indicating that the animal has a quiet disposition. The flesh is usually firm.

Animals of this grade are almost without exception high-grades, crossbreds, or purebreds of beef type. Load lots may vary slightly in color, age, and weight, and may be made up of individuals of the different breeds of beef-type cattle. They range from around 6 months up to about 30 months old, but very few of them are over 18 months old. They are usually on sale in limited numbers at the large central markets during the late summer and fall months, but are very scarce throughout the rest of the year.

Good or No. 2.—Good or No. 2 grade feeder and stocker heifers have a moderately high degree of conformation, finish, and quality. The head is moderately short and wide and the neck is moderately short. They are moderately compact. The body is moderately wide and deep in proportion to its length, with the legs, which are set moderately wide apart, moderately short in proportion to depth of body. Top and underlines tend to be straight and level. The lines of the sides also tend to be straight and parallel but usually converge somewhat toward a point in front of the animal, because of somewhat less width through the shoulders than through the hips. The animal has a moderately good middle, the crops being moderately full and the chest moderately wide and deep. The back and loins are moderately straight and wide and the ribs are moderately long and well

sprung. The belly is slightly paunchy but the rear flank is moderately low. The hips are moderately wide; the rump is moderately wide and deep, and the tail head is slightly high or drooped when compared with the back line.

The thigh is moderately wide and deep and the twist is moderately deep, with the seam of the latter appearing moderately low. The fleshing of the animal is slightly thin, the fore quarters being somewhat thinner in flesh than the hind quarters. The lines of the animal appear practically straight. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a moderately high percentage of ribs, loins, and rounds in its carcass.

The fat covering is slightly thin over the loins and rump and slightly thinner over the shoulders, crops, and back. There are noticeably small deposits of fat in the brisket, flanks, and twist, but these are not sufficient to cause any apparent fullness of these parts. The fat covering as a rule is moderately uniform in its distribution.

The animal is slightly too coarse or too refined, evidencing reasonably good beef-type breeding and care. The bones of the legs are slightly too large or too small, with the joints having like characteristics. The hide is slightly unpliant and is slightly too thick or too thin. The hair is moderately fine and as a rule the flesh of the animal is slightly soft.

Heifers of this grade are usually high-grade beef-type individuals, but occasionally some of them show traces of dairy-type breeding which is mostly indicated by their color markings. Load lots of this grade usually contain individuals of two or more of the different breeds of beef-type cattle. The age limits for feeder and stocker heifers of this grade are approximately the same as those for the Choice and Fancy grades. Feeder heifers of this grade are in limited supply throughout the year. Stocker heifers are offered in fairly liberal numbers during the late summer and fall months at the larger livestock markets, but are comparatively scarce throughout the rest of the year.

Medium or No. 3.—Medium or No. 3 grade feeder and stocker heifers are slightly deficient in conformation, finish, and quality. The head is slightly long and narrow and the neck is also slightly long. They are slightly rangy and angular, the body being slightly narrow in proportion to its length. The legs, which are set slightly close together, are slightly long in proportion to the depth of body. Top and underlines are slightly irregular and oblique and the lines of the sides are also slightly irregular and oblique. The lines of the sides usually converge considerably toward a point in front of the animal because of considerably less width through the shoulders than through the hips. The animal has a slightly poor middle, the crops being slightly empty or sunken and the chest slightly narrow and shallow. The back and loins are slightly narrow and often low, and the ribs are slightly short and flat. The belly is paunchy and the rear flank is slightly high. The hips are slightly narrow and the rump is slightly narrow and peaked with the tail head slightly too high or drooped when compared with back line. The thigh is slightly narrow and tapering, and the twist is slightly shallow, with the seam of the twist appearing slightly high. The fleshing of the

animal is thin, the fore quarters usually being slightly thinner in flesh than the hind quarters. The lines of the animal are slightly depressed or sunken. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a slightly low percentage of ribs, loins, and rounds in its carcass.

The fat covering is thin over the shoulders, crops, back, loins, and rump. Only small deposits of fat are found in the brisket, flanks, and twist, and the hide at these points is somewhat wrinkled. The fat covering is not of sufficient thickness to cause any apparent unevenness or lack of uniformity in its distribution.

Individuals of this grade are slightly too coarse or too refined. The bones of the legs are slightly too large or too small. The hide is slightly too thick or too thin and is unpliant, and the hair is slightly coarse. As a rule the flesh of the animal is soft.

Heifers of this grade usually have the color markings of one of the beef-type breeds of cattle, but their general conformation indicates that they are usually either low grades or of more or less dairy type or nondescript breeding. Heifers of this grade range from around 1 year up to 1½ years of age as a rule, and there are relatively few feeder heifers in the grade. They are generally on sale in limited numbers throughout the year at the larger livestock markets, being seasonally abundant during the late summer and fall months and seasonally scarce during the late winter and spring months.

Common or No. 4.—Common or No. 4 grade feeder and stocker heifers are deficient in their conformation, finish, and quality to a marked degree. The head is long and narrow, and the neck is also long. They are rangy and angular to a marked degree, the body being narrow and often shallow in proportion to its length. The legs, which are set much too close together, are long in proportion to the depth of body. Top and under lines are irregular and oblique to a marked degree, as are the lines of the sides. The latter usually converge rather sharply toward a point in front of the animal, owing to much less width through the shoulders than through the hips. The animal has a poor middle, the crops being empty and sunken to a marked degree and the chest narrow and shallow. The back and loins are narrow and often low, and the ribs are short and flat. The belly is very paunchy, and the rear flank is very high. The hips are narrow, and the rump is narrow and peaked, with the tail head much too high or drooped when compared with the back line. The thigh is narrow and tapering, and the twist is shallow, with the seam of the twist appearing high. The fleshing of the animal is very thin, the fore quarters being especially thin in flesh. The lines of the animal are depressed or sunken to a marked degree. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a low percentage of ribs, loins, and rounds in its carcass.

The fat covering is very thin over the shoulders, crops, back, loins, and rump. There are very small deposits of fat in the brisket, flanks, and twist, and the hide at these points is usually very wrinkled. The fat covering on any of the parts is not of sufficient thickness to cause any apparent roughness or lack of uniformity in its distribution.

Heifers of this grade generally appear ill-bred and ill-cared-for. The bones of the legs are very large or very small. The hide is very thick or very thin and very unpliant. The hair is very coarse and usually appears dry and harsh. As a rule the flesh of the animal is very soft or slightly hard.

Heifers of this grade usually indicate by their conformation that they are of pronounced dairy type or nondescript breeding, but they usually have color markings which show that they also carry some blood of beef-type animals. Heifers of this grade usually range from 1 year up to nearly 2 years of age. Limited numbers are regularly on sale at most markets throughout the year. During the late summer and fall months the supply generally exceeds the demand but as a rule they are relatively scarce during the late winter and spring months.

Inferior or No. 5.—Inferior or No. 5 grade feeder and stocker heifers are very deficient in their conformation, finish, and quality. The head is very long and narrow and the neck is also very long. They are very rangy and angular, the body being very narrow and often very shallow in proportion to its length. The legs, which are set very near together, are very long in proportion to depth of body. Top and underlines are very irregular and oblique as are the lines of the sides. The animal is usually much more narrow through the shoulders than through the hips. Individuals of this grade have a very poor middle, the crops being very depressed or sunken and the chest very narrow and shallow. The back and loins are very narrow and often very low and the ribs are very short and flat. The belly is extremely paunchy and the rear flank is extremely high. The hips are very narrow and the rump is very narrow and peaked, and the tail head, when compared with the back line, is very high or drooped. The thigh is very narrow and tapering and the twist is very shallow with the seam of the twist appearing very high. The fleshing of the animal is extremely thin, this characteristic being especially marked in the fore quarters. The lines of the animal are very depressed or sunken. The development and balance of the different parts indicate that the animal, when finished and slaughtered, will have a very low percentage of ribs, loins, and rounds in its carcass.

The fat covering is extremely thin over the back, ribs, loins, rounds, and rump. There are extremely small deposits of fat in the brisket, flanks, and twist, and the hide at these points is extremely wrinkled as a rule. There is no apparent covering of fat over any other part of the animal.

Heifers of this grade have a very unkempt, ill-cared-for, and ill-bred appearance in most instances. They are extremely coarse or refined. The bones of the legs are extremely large or extremely small. The hide is extremely thick or thin, tight, and extremely unpliant. The hair is extremely coarse and usually very dry and harsh. As a rule, the flesh of the animal is extremely soft or hard.

Heifers of this grade generally show that they are of very pronounced dairy type, nondescript, or scrub breeding and usually have the color markings of dairy type animals to a lesser or greater extent. They range from around 1 year up to about 2 years in age. Limited numbers are on sale at most markets throughout the year. During

the late summer and fall months the supply generally exceeds the demand, but during April and May the reverse is usually true. There are only very limited numbers of feeder heifers of this grade at any season of the year.

GRADES OF FEEDER AND STOCKER COWS

There are five grades of feeder and stocker cows: Choice or No. 1, good or No. 2, medium or No. 3, common or No. 4, and inferior or No. 5.

Choice or No. 1.—Choice or No. 1 grade feeder and stocker cows are much superior in conformation, finish, and quality. The head is very short and wide and the neck is short. They are compact, the body being wide and deep in proportion to its length, and the legs, which are set wide apart, are short in proportion to depth of body. Top and under lines are approximately straight and parallel, but the lines of the sides tend to converge at a point in front of the animal owing to slightly less width through the shoulders than through the hips. The animal has a good middle, the crops being full and the chest wide and deep. The back and loins are straight and wide and the ribs are long and well sprung. The belly is wide and deep, but not paunchy, and the rear flank is low. The hips are wide; the rump is uniformly wide and deep and the tail head is set even with the back line. The thigh is wide and deep and the twist is also deep. The fleshing of each part is moderately thick and each part has approximately its proper proportionate thickness. The lines of the animal appear slightly plump, full, and well rounded. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a high percentage of ribs, loins, and rounds in its carcass.

The fat covering of the animal is moderately thick and tends to be smooth and uniform in distribution, although there are usually small bunches or patches of fat over the loins, rump, and around the tail head, and the fat covering is often noticeably thinner over the fore quarters than over the hind quarters. There are moderately large deposits of fat in the brisket, flanks, and twist, causing these parts to be slightly distended or rounded out.

The animal is moderately refined, being neat and trim in its general appearance. The bones of the legs are of medium size, with the joints smooth and free from coarseness. The hide is loose and pliable and of medium thickness and the hair is fine. The eyes are large and bright, indicating that the animal has a quiet disposition. The flesh of the animal is usually firm.

Individuals of this grade are almost without exception high-grades, crossbreds, or purebreds of beef type. Load lots vary somewhat in color, age, and weight, being generally composed of individuals of two or more of the different breeds of beef-type cattle. In age they range from around 2 years old up. They are usually on sale in limited numbers at the larger central markets during the late summer and fall months but are very scarce throughout the rest of the year.

Good or No. 2.—Good or No. 2 grade feeder and stocker cows have a moderately high degree of conformation, finish, and quality. The head is moderately short and wide and the neck is moderately short.

They are moderately compact, the body being moderately wide and deep in proportion to its length, and the legs, which are set moderately wide apart, are moderately short in proportion to depth of body. The top line tends to be straight and level, but the underline usually sags to a noticeable extent. The lines of the sides converge considerably toward a point in front of the animal owing to somewhat less width through the shoulders than through the hips. The animal has a moderately good middle, the crops being moderately full and the chest moderately wide and deep. The back and loins are moderately straight and wide and the ribs are moderately long and well sprung. The belly is slightly paunchy and the rear flank is moderately low. The hips are moderately wide; the rump is moderately wide and deep and the tail head is usually high when compared with the rest of the top line. The thigh is moderately wide and deep and the twist is moderately deep. The fleshing of the animal is moderately thin as well as moderately uneven, the fore quarters being noticeably thinner in flesh than the hind quarters. The lines of the animal appear slightly depressed and the bones of the shoulders and hips slightly prominent. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a moderately high percentage of ribs, loins, and rounds in its carcass.

The fat covering of the animal is slightly thin over the loins and rump and somewhat thinner over the shoulders, crops, and back. The fat covering is usually slightly rough, small patches and bunches of fat often occurring over the loins, rump, and around the tail head. The fat covering is, as a rule, slightly uneven in its distribution, being noticeably thinner over the fore quarters than over the hind quarters. There are noticeably small deposits of fat in the brisket, flanks, and twist, but these are not sufficient to cause any apparent fullness of these parts.

The animal is usually slightly too refined or coarse but evidences reasonably good beef-type breeding and care. The bones of the legs are slightly too small or large. The hide is slightly unpliant and is slightly too thick or thin and tight. The hair is moderately fine and, as a rule, the flesh of the animal is slightly soft.

Cows of this grade are usually high-grade beef-type individuals, but occasionally some of them show dairy-type breeding which is mostly indicated by their color markings. Load lots of this grade usually contain individuals of different breeds of beef-type cattle. In age they range from around 2 years old up, but very few are under 3 years old. They are in limited supply throughout the year, but are offered mostly during the late summer and fall months and are usually very scarce throughout the rest of the year.

Medium or No. 3.—Medium or No. 3 grade feeder and stocker cows are noticeably deficient in conformation, finish, and quality. The head is slightly long and narrow and the neck is also slightly long. They are slightly rangy and angular, the body being slightly narrow and very shallow in proportion to its length, with the legs, which are set slightly close together, slightly long in proportion to depth of body. The top line is slightly irregular and the underline usually has a considerable sag in the middle. The lines of the sides have a marked degree or irregularity and obliqueness. converging

toward a point in front of the animal on account of much less width through the shoulders than through the hips. The animal has a slightly poor middle, the crops being slightly empty or sunken and the chest slightly narrow and shallow. The back and loins are slightly narrow and usually slightly low and the ribs are slightly short and flat. The belly is paunchy and the rear flank is slightly high. The hips are slightly narrow and the rump is slightly narrow and peaked, with the tail head slightly high or drooped when compared with the back line. The thigh is slightly narrow and tapering and the twist is slightly shallow. The flesh of the animal is thin, the fore quarters being somewhat thinner in flesh than the hind quarters. The lines of the animal are much depressed or sunken and the bones of the shoulders and hips are prominent. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a moderately low percentage of ribs, loins, and rounds in its carcass.

The fat covering is thin over the loins and rump and somewhat thinner over the shoulders, crops, and back. Only small deposits of fat are found in the brisket, flanks, and twist, and the hide at these points is somewhat wrinkled. As a general thing the fat covering is not of sufficient thickness to cause any apparent roughness or lack of uniformity in its distribution.

As a rule, individuals of this grade are slightly too refined or too coarse. The bones of the legs are usually slightly too small or too large. The hide is slightly too thick or too thin and is tight and unpliant. The hair is noticeably coarse and as a rule the flesh of the animal is soft.

Cows of this grade usually have the color markings of one of the purebred breeds of beef-type cattle, but their general conformation usually indicates that they are low grades or are of more or less dairy type or nondescript breeding. They range from around 2 years and up, with very few under 3 years old. They are generally on sale in limited numbers throughout the year at the larger livestock markets—abundant during the summer and fall months and scarce during the late spring months.

Common or No. 4.—Common or No. 4 grade feeder and stocker cows are deficient to a marked degree in conformation, finish, and quality. The head is long and narrow and the neck is also long. They are rangy and angular to a marked degree, the body being much too narrow and often much too shallow in proportion to its length. The legs, which are set close together, are long in proportion to depth of body. The top line is irregular and uneven and the underline is irregular and sags in the middle to a great extent. The lines of the sides converge sharply toward a point in front of the animal owing to much less width through the shoulders than through the hips. The animal has a poor middle, the crops being narrow and sunken to a marked degree, and the chest much too narrow and shallow. The back and loins are narrow and usually low, and the ribs are much too short and flat. The belly is very paunchy and the rear flank is very high. The hips as well as the rump are much too narrow and the rump is peaked, with the tail head, when compared with the rest of the top line, much too high or drooped. The thigh is narrow and much too tapering and the twist is shallow

with the seam of the twist appearing much too high. The fleshing of the animal is very thin, the fore quarters being especially thin in flesh. The lines of the animal are depressed or sunken to a marked degree. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a low percentage of ribs, loins, and rounds in its carcass.

The fat covering is very thin over the entire body. There are very small deposits of fat in the brisket, flanks, and twist, and the hide at these points is usually very much wrinkled. The fat covering is not of sufficient thickness on any of the parts to cause any apparent roughness or lack of uniformity in its distribution.

Cows of this grade are generally very refined or very coarse and very ill bred and ill-cared-for. The bones of the legs are either very small or very coarse. The hide is very thick or very thin and tight to a marked degree and very unpliant. The hair is very coarse and is usually very dry and harsh. As a rule the flesh of the animal is very soft or slightly hard.

Cows of this grade usually indicate by their general conformation that they are of pronounced dairy type or nondescript breeding, but they usually have color markings which show that they also carry some of the blood of beef-type animals. They range from around 2 years old up, with very few under 3 years of age. They are regularly on sale at most markets in fairly liberal numbers throughout the year. During the summer and fall months the supply generally exceeds the demand, but as a rule they are relatively scarce during April and May.

Inferior or No. 5.—Inferior or No. 5 grade feeder and stocker cows are very deficient in conformation, finish, and quality. The head is very long and narrow and the neck is also very long. They are very rangy and angular, the body being very narrow and occasionally very shallow in proportion to its length. The legs, which are set very near together, are very long in proportion to depth of body. The top line is very irregular and uneven, and the underline is very irregular and usually has a very pronounced sag in the middle. The lines of the sides are very irregular and oblique, converging very much toward a point in front of the animal. The middle is very poor, the crops being very depressed or sunken and the chest very narrow and, as a rule, shallow. The back and loins are very narrow and often low and the ribs are very short and flat. The belly is extremely paunchy and the rear flank is extremely high. The hips are very narrow and the rump is very narrow and peaked, with the tail head very high or drooped when compared with the rest of the top line. The thigh is very narrow and tapering and the twist is very shallow. The fleshing of the animal is extremely thin, this being especially marked in the forequarters. The bones of the shoulders and hips are very prominent. The backbone and ribs are also prominent to a marked degree. The lines of the animal are very depressed or sunken. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a very low percentage of ribs, loins, and rounds in its carcass.

The fat covering is extremely thin over the shoulders, back, ribs, loins, and rump. There are extremely small deposits of fat in the brisket, flanks, and twist, and the hide at these points is very wrinkled

as a rule. There is no apparent covering of fat over any other part of the animal; hence there is no visible lack of smoothness or uniformity in its distribution.

Cows of this grade are either extremely refined or extremely coarse and have a very unkempt, ill-cared-for and ill-bred appearance in most instances. Their conformation generally shows that they are of very pronounced dairy type, nondescript, or scrub breeding, and they usually have the color markings of dairy-type animals to a lesser or greater extent. The bones of the legs are either extremely small or extremely large. The hide is either extremely thin or thick and extremely inelastic and tight. The hair is extremely coarse and usually extremely dry and harsh. As a rule, the flesh of the animal is extremely soft, but in some instances it is hard.

In age they range from around 2 years up, with relatively few under 3 years old. They are regularly on sale throughout the year at most all livestock markets. During the summer and fall they are, as a rule, greatly in excess of the demand, but during the late spring the demand fairly well balances the supply.

GRADES OF FEEDER AND STOCKER BULLS

There are five grades of feeder and stocker bulls: Choice, or No. 1; good, or No. 2; medium, or No. 3; common, or No. 4; and Inferior, or No. 5.

Choice or No. 1.—Choice or No. 1 grade feeder and stocker bulls are much superior in conformation, finish, and quality. The head is very short and the neck is also very short. They are compact, the body being wide and deep in proportion to its length and the legs, which are set wide apart, are short in proportion to depth of body. The top line from the crops to the tail head and the underline are very straight and level, but there is usually more or less of a rise in the top line over the withers and neck. Lines of the sides are usually slightly uneven bulging more or less at the shoulders and rounds. The animal has a good middle, the crops being very full and the chest very wide and deep. The back and loins are straight and wide and the ribs are long and well sprung. The belly is wide and deep but not paunchy and the rear flank is low. The hips are wide, the rump is wide and deep and the tail head is set even with the back line. The thigh is wide and deep and the twist is also deep with the seam of the twist appearing low. The fleshing of the crops, back, and loin is moderately thick with the fleshing of the shoulders, rump, and rounds noticeably thicker. The lines of the animal appear moderately plump, full, and well rounded, this being especially noticeable in the shoulders, rump, and rounds. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a moderately high percentage of ribs, loins, and rounds in its carcass.

The fat covering of the animal is moderately thick and as a rule is noticeably smooth and uniform in its distribution. There are moderately large deposits of fat in the brisket, flanks, and twist, causing these parts to be distended or rounded out to a moderate degree.

The animal is refined to a moderate extent and neat and trim in its general appearance. The bones of the legs are of medium size. The

hide is moderately loose and pliable and moderately thick. The hair is fine and the flesh of the animal usually is firm.

Individuals of this grade are almost without exception high-grades, crossbreds, or purebreds of beef type. They range from around 1 year old and up in age being for the most part from 1½ to 2½ years old. They are offered only in very limited numbers at any livestock market and have no season of marked scarcity or abundance.

Good or No. 2.—Good or No. 2 grade feeder and stocker bulls have a moderately high degree of conformation, finish, and quality. The head is moderately short and wide and the neck is also moderately short. They are moderately compact, the body being moderately wide and deep in proportion to its length with the legs, which are set moderately wide apart, being moderately short in proportion to depth of body. The top line from the crops to the tail head and the underline tend to be straight and level, but there is usually more or less of a rise in the top line over the withers and neck. The lines of the sides usually show considerable unevenness, bulging to a considerable extent at the shoulders and rounds. The animal has a moderately good middle, the crops being moderately full and the chest moderately wide and deep. The back and loins are moderately straight and wide and the ribs are moderately long and well sprung. The belly is moderately wide and deep and the rear flank is moderately low. The hips are moderately wide; the rump is moderately wide and deep and the tail head is moderately high or drooped when compared with the back line. The thigh is wide and moderately deep and the twist is moderately deep, with the seam of the twist appearing moderately low. The fleshing of the crops, back, and loins is slightly thin and the fleshing of the shoulders, rump, and rounds is slightly thicker. The lines of the animal appear practically straight. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a moderately high percentage of ribs, loins, and rounds in its carcass.

The fat covering of the animal is slightly thin over the crops, back, loins, and rump and is slightly thicker over the shoulders and rounds. As a rule there are slightly small deposits of fat in the brisket, flanks, and twist, but these are not sufficient to cause any apparent fullness of these parts.

The animal is usually slightly too coarse or too refined, but reflects good beef-type breeding and care. The bones of the legs are slightly too large or too small. The hide is usually slightly too thick or too thin as well as slightly unpliant. The hair is moderately fine and as a rule the flesh of the animal is slightly soft.

Bulls of this grade are usually high-grade beef-type individuals, but occasionally some of them show traces of dairy-type breeding which is usually indicated by their color markings. They range from around 1 year up in age, being for the most part from 1 to 2 years old. They are offered only in limited numbers at any livestock market, but are usually most numerous during the late summer and fall months.

Medium or No. 3.—Medium or No. 3 grade feeder and stocker bulls are slightly deficient in their conformation, finish, and quality. The head is slightly long and narrow and the neck is also slightly long. They are slightly rangy and angular, the body being moder-

ately narrow in proportion to its length with the legs, which are set slightly close together, being slightly long in proportion to depth of body. The top line is slightly uneven, having the customary rise over the withers and neck and usually dipping slightly in front of the hips and back of the shoulders. The underline occasionally sags slightly in the middle. The lines of the sides are slightly irregular and oblique. The animal has a slightly poor middle, the crops being slightly empty and sunken and the chest slightly narrow and shallow. The back and loins are slightly narrow and usually low and the ribs are noticeably short and flat. The belly is paunchy and the rear flank is slightly high. The hips are slightly narrow and the rump is slightly narrow and peaked, with the tail head slightly high or drooped when compared with the back line. The thigh is slightly narrow and the twist is slightly shallow, with the seam of the twist slightly high. The fleshing of the crops, back, and loins is thin, with the fleshing of the shoulders, rump, and rounds slightly thicker. The lines of the animal appear slightly depressed. The development and balance of the different parts indicate that the animal when finished and slaughtered will have a noticeably low percentage of ribs, loins, and rounds in its carcass.

The fat covering is thin over the crops, back, loins, and rump, and slightly thinner over the shoulders and top of the rounds. Only small deposits of fat are found in the brisket and flanks, and the hide at these points is usually more or less wrinkled. The fat covering is not of sufficient thickness to cause any apparent roughness or lack of uniformity in its distribution.

Individuals of this grade are generally lacking in refinement, being, as a rule, slightly too coarse or too refined. The bones of the legs are slightly too large or too small. The hide is slightly too thick or too thin and is usually tight and unpliant. The hair is slightly coarse and, as a rule, the flesh of the animal is soft.

Bulls of this grade usually have the color markings of one of the purebred breeds of beef-type cattle but their general conformation usually indicates that they are low grades or are of more or less dairy-type or nondescript breeding. In age they range from around 1 year up, with very few over 3 years old. They are generally on sale in very limited numbers throughout the year at the larger livestock markets, but are most numerous during the late summer and fall months.

Common or No. 4.—Common or No. 4 grade feeder and stocker bulls are deficient to a marked degree in conformation, finish, and quality. The head is long and narrow and the neck is also long. They are rangy and angular to a marked degree, the body being narrow and often shallow in proportion to its length. The legs, which are set close together, are long in proportion to depth of body. The top line is irregular to a marked degree, the rise over the withers and neck usually being pronounced. The lines of the sides are also irregular to a marked degree and the underline usually has a pronounced sag in the middle. The animal has a poor middle, the crops being narrow and sunken and the chest narrow and shallow. The back and loins are narrow and usually low and the ribs are short and flat. The belly is often very paunchy and the rear flank

very high. The hips as well as the rump are narrow and the rump is usually peaked and the tail head when compared with the back line appears high or drooped. The thigh is narrow and tapering and the twist is shallow with the seam of the twist appearing high. The fleshing of the animal is very thin over the crops, back, and loins but is usually somewhat thicker over the shoulders, rump, and rounds. The lines of the animal are noticeably depressed or sunken as a rule.

There is no part of the animal on which the fat covering is not very thin, there being as a rule no apparent fat covering except over the crops, back, and loins. As a general rule there are no apparent deposits of fat in brisket or flanks and the hide at these points is usually very much wrinkled.

They are usually very coarse or very refined and have a very ill-bred and ill-cared-for appearance. The bones of the legs are very large or very small. The hide is very thick or very thin and tight as well as very unpliant. The hair is very coarse and is usually very dry and harsh. As a rule the flesh of the animal is either very soft or slightly hard.

Bulls of this grade usually indicate by their general conformation that they are either of pronounced dairy type or nondescript breeding, but they usually have color markings which show that they also carry some of the blood of beef-type animals. They range from around 1 year old up with very few over 3 years old. They are generally on sale in very limited numbers at most markets throughout the year, being most plentiful during the summer and fall months.

Inferior or No. 5.—Inferior or No. 5 grade feeder and stocker bulls are very deficient in their degree of conformation, finish, and quality. The head is very long and narrow and the neck is also very long. They are very rangy and angular, the body being very narrow and often very shallow in proportion to its length. The legs which are set very near together are very long in proportion to depth of body. The top line is very irregular and uneven, with the customary rise over the withers and neck, and the underline usually has a very pronounced sag in the middle. Lines of the sides are very irregular. The animal has a very poor middle, the crops being very depressed or sunken and the chest very narrow and often shallow. The back and loins are very narrow and usually low and the ribs are very short and flat. The belly is extremely paunchy and the rear flank is extremely high. The hips are very narrow and the rump is very narrow and peaked with the tail head very high or drooped when compared with the back line. The thigh is very narrow and tapering and the twist is very shallow with the seam of the twist appearing very high. The fleshing of the animal is extremely thin over the crops, back, and loins, but is usually slightly thicker over the shoulders, rump, and rounds. The lines of the animal are depressed or sunken as a rule.

There is apparently no fat covering on any part of the animal nor any fat deposited in the brisket or in the flanks. The animal is usually extremely coarse or extremely refined and has a very unkempt, ill-cared-for and ill-bred appearance. The bones of the

legs are extremely large or extremely small. The hide is extremely thick or thin and is extremely tight and unpliant. The hair is usually extremely coarse, dry, and harsh.

The general conformation of bulls of this grade usually shows that they are of very pronounced dairy type, or nondescript or scrub breeding, and they usually have the color markings of dairy-type animals to a lesser or greater extent. In age they range from around 1 year up with very few over 3 years of age. They are on sale in limited numbers at most markets throughout the year, being most numerous during the summer and fall months.

GRADES OF FEEDER AND STOCKER STAGS

Theoretically there could be six grades of feeder and stocker stags ranging from fancy or No. A1 to inferior or No. 5. But stags of all kinds comprise a very small percentage of the total cattle receipts at any market. Virtually all stags received at large central markets are bought and sold as slaughter cattle. Very few are ever taken back to the country for feeder or stocker purposes. For this reason detailed descriptions of the possible grades of feeder and stocker stags are not given. Furthermore, detailed descriptions of these grades of stags would not differ to any great extent from those given for the corresponding grades of feeder and stocker steers. The main difference lies in conformation, although they average considerably lower in quality, with practically the same degree of finish. As a class their necks, shoulders, and rounds are thicker than those of steers to a greater or lesser extent. Stags are an in-between class, falling between steers and bulls. In reality they are males which were not castrated until they had reached sufficient maturity to make reproduction possible and which had developed to some extent many of the physical characteristics peculiar to the adult uncastrated male.

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